Deutsche Physikalische Gesellschaft DPG

79. Jahrestagung der DPG
(79th Annual Meeting of the DPG)
and
DPG-Frühjahrstagung 2015
(Spring Meeting)
of the
Condensed Matter Section
in conjunction with
further Divisions and Working Groups
Short Programme

INTERNATIONAL YEAR OF LIGHT 2015

Technische Universität Berlin

15 – 20 March 2015

Impressum:

Deutsche Physikalische Gesellschaft e. V.
Hauptstraße 5
53604 Bad Honnef
Tel.: 02224 / 9232-0
Fax: 02224 / 9232-50
dpg@dpg-physik.de
www.dpg-physik.de
Gerichtsstand: Königswinter

Eingetragen in das Vereinsregister (VR 90474) des Amtsgerichtes Siegburg. Die DPG fördert wissenschaftliche Zwecke. Sie ist nach § 5 Abs. 1 Nr. 9 KStG von der Körperschaftsteuer befreit, weil sie ausschließlich und unmittelbar steuerbegünstigten gemeinnützigen Zwecken i. S. der §§ 51 ff. AO dient.

Verantwortlich für den Inhalt:
Dr. Bernhard Nunner (Hauptgeschäftsführer)

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Unternehmenspräsentation mit anschließender Diskussion:
Donnerstag, 19.3.2015, 14:30–15:30 Uhr, PC 203

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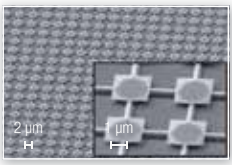

MULTI TECHNIQUE ELECTRON BEAM LITHOGRAPHY

RAITH
NANOFABRICATION

Greeting

Welcome to the 79th Annual Meeting of the DPG and Spring Meeting of the Condensed Matter Section with the divisions and working groups at the internationally renowned Technische Universität (TU) Berlin. This conference is the largest and most important physics conference in Europe. We expect over 6,000 participants and over 5,000 conference papers that will be presented here. The conference is also an essential platform for students where they present their theses for the first time and have the opportunity to meet experienced physicists from academia or industry for knowledge exchange and career planning. Regarding the outstanding program I would like to mention just a few highlights:

- Ceremonial Session with Award Ceremony (March 17, 16:15),
- Lectures of Nobel Laureates Prof Stefan Walter Hell and Prof Albert Louis François Fert,
- Eight interdisciplinary symposia on current topics and two dissertation awards symposia,
- Eleven plenary lectures, price lectures, tutorials, special talks on publishing, research funding, university teaching, industry-related research,
- Public Lecture: Prof Theo Geisel in the URANIA (March 18, 20:00): musical rhythms and algorithms: Physicists in other ways,
- Bridge to the industry: lecture on "Light in medical technology" by Dr Totzeck (Carl Zeiss AG), Job Market and an industrial exhibition,
- Innovation in teaching: lecture by Prof Dubson (USA) to Massive Open Access Courses (MOOC),
- Max-von-Laue- and Lise-Meitner-Lecture,
- Einstein Slam of young DPG in the URANIA (March 16, 20:00).

Moreover, this Annual Meeting (and all DPG Spring Meetings) is under the particular focus of the "International Year of Light" (IYOL). The United Nations proclaimed 2015 as the International Year of Light and Light-based Technologies to honour the importance of light for research and culture. In Germany the IYOL is coordinated by the DPG in cooperation with the German Commission for UNESCO.

The DPG would like to create a better understanding of the significance of physics in our society and to promote more technology acceptance. Therefore, the programme also includes special events dedicated to the IYOL as the lecture of Prof Hermann Haken “From Laser Light to Brain Dynamics” at the Ceremonial Session (March 17, 17:50); an interdivisional special symposium “Frontiers of Light” (March 17, 13:00) and more focus sessions and invited/topical talks on this subject.

Such a conference is only feasible thanks to the great efforts of everyone involved. Firstly, I would like to thank the TU Berlin for being our host and for their assistance together with the Wilhelm and Else Heraeus Foundation for their generous financial support for all Spring Meetings. Many thanks also to the various DPG associations for their successful work. My very special thanks go to the local conference organiser, Prof Eckehard Schöll, TU Berlin, Institute of Theoretical Physics, and his staff. Furthermore, I am particularly grateful to the DPG Head Office for the support and assistance it provides for all DPG Spring Meetings.

Prof. Dr. Edward G. Krubasik
President of the
Deutsche Physikalische Gesellschaft

Organisation

Organiser
Deutsche Physikalische Gesellschaft e. V.
Hauptstraße 5, 53604 Bad Honnef
Phone +49 (0) 2224 9232-0
Fax +49 (0) 2224 9232-50
Email dpg@dpg-physik.de
Homepage www.dpg-physik.de

Local Organiser
Prof. Dr. Eckehard Schöll
Institut für Theoretische Physik
Technische Universität Berlin
Hardenbergstraße 36, 10623 Berlin
Phone +49 (0) 30 314 23500
Fax +49 (0) 30 314 21130
Email schoell@physik.tu-berlin.de

Scientific Organisation

Chair of the Condensed Matter Section (SKM)
Prof. Dr. Klaus Richter
Universität Regensburg
Fakultät für Physik, 93040 Regensburg
Phone +49 (0) 941 943-2029
Fax +49 (0) 941 943-4382
Email klaus.richter@physik.uni-regensburg.de

Chairs of the Participating Divisions of the Condensed Matter Section

(BP) Biological Physics
Prof. Dr. Stefan Diez
(diez@bcube-dresden.de)

(CPP) Chemical and Polymer Physics
Prof. Dr. Kurt Kremer
(kremer@mpip-mainz.mpg.de)

(DF) Dielectric Solids
PD Dr. Elisabeth Soergel
(soergel@physik.uni-bonn.de)

(DS) Thin Films
Prof. Dr. Jürgen Fassbender
(j.fassbender@hzdr.de)

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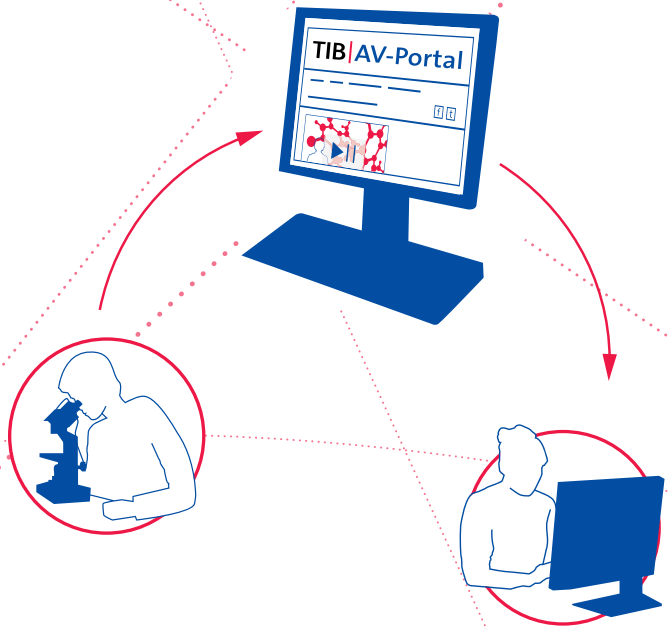

TIB | Technische Informationsbibliothek

Mitglied der Leibniz-Gemeinschaft

(DY) Dynamics and Statistical Physics
Prof. Dr. Joachim Peinke
(peinke@uni-oldenburg.de)

(HL) Semiconductor Physics
Prof. Dr. Erich Runge
(erich.runge@tu-ilmenau.de)

(KR) Crystallography
Dr. Leonore Wiehl
(L.Wiehl@kristall.uni-frankfurt.de)

(MA) Magnetism
Prof. Dr. Michael Farle
(farle@uni-due.de)

(MM) Metal and Material Physics
Prof. Dr. Mathias Göken
(mathias.goeken@ww.uni-erlangen.de)

(O) Surface Science
Prof. Dr. Martin Wolf
(wolf@fhi-berlin.mpg.de)

(SOE) Physics of Socio-Economic Systems
PD Dr. Jens Christian Claussen
(j.claussen@jacobs-university.de)

(TT) Low Temperature Physics
Prof. Dr. Ulrich Eckern
(eckern@physik.uni-augsburg.de)

(VA) Vacuum Science and Technology
Dr. Gerhard Voss
(gerhard.voss@oerlikon.com)

Chairs of further Participating Divisions of the DPG

(GP) History of Physics
Dr. Christian Forstner
(Christian.Forstner@uni-jena.de)

(GR) Gravitation and Relativity
Prof. Dr. Domenico Giulini
(giulini@itp.uni-hannover.de)

(MI) Microprobes
Dr. Enrico Langer
(langer@physik.tu-dresden.de)

(MP) Theoretical and Mathematical Physics
Prof. Dr. Karl-Henning Rehren
(rehren@theorie.physik.uni-goettingen.de)

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Chairs of the Participating Working Groups

(AGA) Physics and Disarmament
Prof. Dr. Götz Neuneck
(neuneck@public.uni-hamburg.de)

(AGI) Information
Dr. Uwe Kahlert
(kahlert@physik.rwth-aachen.de)

(AGPhil) Philosophy of Physics
PD Dr. Meinard Kuhlmann
(mkuhlmann@uni-bielefeld.de)

(AKC) Equal Opportunities
Dipl.-Phys. Anja Sommerfeld
(akc@dpg-physik.de)

(AKE) Energy
Prof. Dr. Hardo Bruhns
(comm1@bruhns.info)

(AGjDPG) Young DPG
Georg Winner
(winner@jdpg.de)

Symposia

SYDW Domain Wall Functionality and Engineering in Complex Oxides

SYGD GR-HK-T Dissertation Prize

SYGP Geometric Paradigms in Modern Physics

SYHM Higgs Modes in Condensed Matter and Quantum Gases

SYME Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-Scale

SYMM Magic MAX Phases: Self-healing, Magnetism and the Next Best Graphene

SYNP Neurophysics: Physical Approaches to Deciphering Neuronal Information

SYOP On-Surface Polymerisation

SYPS Physics of Sustainability and Human-Nature Interactions

SYSD SKM Dissertation Prize

Organisation of the
Exhibition of Scientific Instruments and Literature

DPG-Kongress-, Ausstellungs- und
Verwaltungsgesellschaft mbH
Hauptstraße 5
53604 Bad Honnef
Phone +49 (0)2224 9232-0
Fax +49 (0)2224 9232-50
Email dpg@dpg-physik.de
Homepage www.dpg-gmbh.de

Programme

The scientific programme consists of 5.219 contributions:

13	Plenary talks
3	Evening talks
9	Prize talks
4	Keynote talks
62	Topical talks
12	Tutorials
311	Invited talks
3.147	Contributed talks
1.658	Posters

Information for Participants

The conference will be held March 15 – 20, 2015.

Conference Information

Conference Venue

Campus of the Technische Universität Berlin
Straße des 17. Juni 135
10623 Berlin

The central activities like registration etc. will take place in the Main Building (H) of the Technische Universität Berlin (Straße des 17. Juni 135). For a detailed map of the campus and the buildings please see end of this booklet.

Conference Office – Information Desk

The conference office and the information desk are located in the lobby of the Main Building (H). During the conference you can contact the conference office by phone +49 (0)30 314 21000.

The opening hours are the following:

Sunday	March 15, 2015	15:00 – 19:00
Monday	March 16, 2015	7:30 – 18:00
Tuesday	March 17, 2015	8:00 – 16:00
Wednesday	March 18, 2015	8:00 – 16:00
Thursday	March 19, 2015	8:00 – 16:00
Friday	March 20, 2015	8:00 – 12:00

You will receive the printed short Programme and your name tag at the conference desk. The name tag must be worn visibly during the entire conference.

The organisers, staff of the conference desk, and the student assistants will be identifiable by coloured name tags and Φ-T-shirts. Please contact them if you have any questions.

Do not hesitate to inquire about all necessary information concerning the conference, orientation in Berlin, accommodation, restaurants, going out, and cultural events at the information desk located in the conference office (Main Building H).

Lecture Rooms
The lecture rooms will be signposted by abbreviations for the respective buildings and the room number:

Building	Room	Division
Main Building	H 0104	TT, PV
(Hauptgebäude)	H 0105	Plenary, Symposia
	H 0106	MM
	H 0107	MM
	H 0110	TT, MA
	H 0111	DS
	H 0112	MA
	H 1012	MA
	H 1028	BP
	H 1029	Discussions after Plenary Talks
	H 1036	Speakers' Ready Room
	H 1058	BP
	H 2013	GR
	H 2032	DS
	H 2033	GR posters
	H 2035	DPG Press Office
	H 2053	TT
	H 3005	TT
	H 3010	TT
	H 3012	Preparation and discussion
	H 3013	Preparation and discussion
Main Annex	EB 107	DF
(Erweiterungsbau)	EB 202	MA
	EB 1033C	DF
	EB 301	MA
	EB 407	DF
Ernst Ruska	ER 164	HL
(Physik Altbau)	ER 270	HL
	ER	Cloakroom below ER 270
Eugene-P.-Wigner	EW 015	HL
(Physik Neubau)	EW 201	HL
	EW 202	HL
	EW 203	HL
Mathematikgebäude	MA 001	SOE, O

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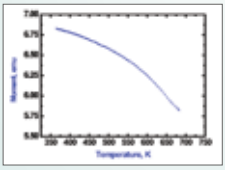
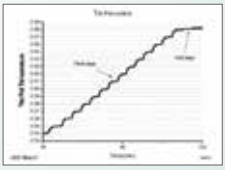


High Temperature Option (700 K)



Helium-3 insert measurements
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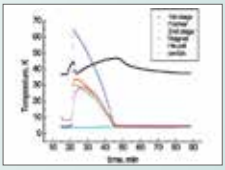
Insert Temperature Stability



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	MA 004	O
	MA 005	O
	MA 041	O
	MA 042	O
	MA 043	O
	MA 141	O
	MA 142	Preparation and discussion
	MA 143	Preparation and discussion
	MA 144	O
	HE 101	O, SYSD
Chemiegebäude	C 130	CPP
	C 243	CPP
	C 264	CPP
Physikalische Chemie	PC 203	CPP, Job Market
Technische Chemie	TC 006	MM
	TC 010	MM
Architekturgebäude	A 053	TT
	A 060	AGPhil
	A 151	AKE, AGA
Gebäude Heizung/ Lüftung	HL 001	GP
Elektrotechnik	E 124	KR
	EMH 225	MI, AGA
Hochfrequenztechnik	HFT-FT 101	MP, GR-Diss
	HFT-FT 131	VA, jDPG
	TA 251	AGI, AKC
Bergbau/ Hüttenwesen	BH-N 128	DY
	BH-N 243	DY
	BH-N 334	DY
	BH-N 333	DY

Presentation
Scientific presentations will be held either orally or by poster. Presentations with a German abstract will be given in German.

Oral presentation
All lecture rooms will be equipped with a data projector with VGA input. Laptops must be provided by the speakers. All laptops must be set up and connected with the data projector before the start of the respective session. There will be a "speakers' ready room" available in the Main Building in room H 1036. Student assistants will provide support for the handling of the data projectors.
If you need an overhead projector for your talk please contact the registration office on arrival. Overhead projectors will only be available in exceptional cases.

Poster presentation
The poster boards will be marked with the number according to the scientific Programme. Authors are asked to mount their poster before their session. Each poster should display the number according to the scientific programme. Each poster should be no larger than 85 cm x 120 cm. (Ao portrait format).

For the mounting of the poster please use the prepared "power strip" at the poster frame or contact the available student staff. Please make sure to use only power strips for mounting the poster (residue-free removing). The presenting authors should be at hand for discussion at their poster during at least half of the poster session and should note this time at the poster.

The posters have to be removed after the session. Any posters remaining on display walls will be removed and disposed without requesting your permission. The conference management accepts no liability for the posters.

The Poster areas are located in the following areas of the TU Berlin:

Abbr.	Location	Max. number of posters	
A	Main building (H) – Gallery 2nd floor	150	Poster area A is located in the Main Building, 2nd floor, Gallery round the Lichthof
B	Main building (H) – Gallery 3rd floor	150	Poster area B is located in the Main Building, 3rd floor, Gallery round the Lichthof
C	Main building (H) old library	75	Poster area C is located in the Main Building, 3rd floor, opposite Lichthof/Gallery
E	MA 141/Gallery	35	Poster area E is located in the Mathematics Building, 1st floor
F	Tent (Pavilion A + B)	44	Poster area F is located in Pavilion A + B (tent) between the main building and the old TU Mensa

Wilhelm and Else Heraeus Communication Programme
Important notes for participants who apply for a grant of the Wilhelm and Else Heraeus Foundation:
At the beginning of the conference you will receive an identification form at the conference office. The participation in the conference must be certified by the conference desk. You have the possibility to leave this certificate by the staff members of the DPG (recommended!) in the conference office or submit it to the DPG Head Office (DPG-Geschäftsstelle, Hauptstr. 5, 53604 Bad Honnef, Germany) by April 10, 2015 at the latest.
For more detailed information refer to http://berlin15.dpg-tagungen.de.

The Deutsche Physikalische Gesellschaft thanks the Wilhelm and Else Heraeus Foundation for the generous financial support of young academic talents. We hope that young physicists will continue to seize the offered opportunity for active scientific communication at scientific conferences. A total of about 20,000 young academics were supported by this programme so far.

General Information

Transportation
Berlin offers a very good transportation infrastructure. A map of public transport in Berlin is included in the registration material and is available in the conference office.

Internet Access
For using the Wireless LAN network in the TU Berlin, guest accounts will be provided to you. You will receive the login and password with your registration. TU Berlin offers instructions for getting access to the WLAN at http://www.tubit.tu-berlin.de/wlan/parameter/en/.

Please connect your wifi device to the network "TUB-Guest". Open a browser (e.g. Firefox, Internet Explorer) and you will be automatically redirected to the login site. Please enter the guest username and the corresponding password (case sensitive) into the login form. After the confirmation of the terms of service you are online and enabled to surf in the web or to read e-mails.

If your home university is part of the eduroam union, you can access the TU Berlin WLAN "eduroam" using your own eduroam account. Please assure that you have installed the three certificates which can be found on the mentioned website.

There will be a WLAN help desk in the lobby of the Main Building near H 0104. Since the WLAN network of TU Berlin is not designed for parallel connection with high data transmission of several thousand users, there will be PC pools available in the Main Building (H 3017), the Physics Building (EW 019), and the Electrical Engineering Buildung (E-N 004), too. In these PC pools you can also connect your own laptop to the internet.

Rooms for Preparation and Discussion
For the convenience of the participants, the following rooms will be provided for preparation and private discussions: H 3012, H 3013, MA142, MA143.

Discussion with Plenary Speakers
After the plenary talks, coffee, tea, and refreshments will be served in room H 1029, and there will be a possibility of informal discussions with the plenary speakers.

International Year of Light
A number of special events will be organised on the occasion of the International Year of Light 2015, including plenary talks by Stefan Hell (Göttingen) „Nanoscopy with focused light“ and Hermann Haken (Stuttgart) „From laser light to brain dynamics“, a Symposium on “Frontiers of Light”, and additional focus sessions and invited talks.

Message Board
All alterations in the scientific programme and other important information for participants will be announced on a message board near the information desk (Main Building, in the lobby) and via the homepage http://berlin15.dpg-tagungen.de/index.html.

Lunch, Snacks and Coffee Breaks
In the vicinity of the TU Berlin, there are many different restaurants from fast food to gourmet restaurants. The Mensa of the TU Berlin also offers plenty of opportunities for lunch at moderate prices. A re-chargeable Mensa card can be purchased (including 1,50 € refundable deposit) in the Mensa building during the conference. A list of nearby restaurants is available at the registration desk. Various cafeterias are located in the Main Building (H), the Mathematics Building (MA), the Physics Building (EW) and the Architecture Building (A).

In Pavilion A (tent) you can find the industrial exhibition and poster area F, and coffee, tea, and beverages are offered there for free as well as different snacks. Please make use of this offer and also visit the exhibition stands.

Coffee, tea, and beverages are offered during all breaks in the Main Building (H), the Main Annex (EB), the Physics Building (EW, ER), the Mathematics Building (MA), the Chemistry (C) and Technical Chemistry Building (TC), the Architecture Building (A), the High Frequency Engineering Building (HFT), and the Mining Building (BH-N).

Cloakroom
Participants are asked to carefully watch their clothes, valuables, laptops, and other belongings, for which the organisers are not liable. You will find cloakrooms in the Main Building and in the Mathematics Building (MA) and Physics Building (ER).

Events

Tutorials
On Sunday, March 15, 16:00 – 18:30, there will be tutorial workshops on current scientific topics for interested conference participants, in particular for students and young scientists. All conference participants are welcome.

Topics:
- "Domain walls in magnetic, ferroelectric, multiferroic materials" (H 0107)
- "Nonequilibrium Renormalisation Group Methods" (H 0110)
- "Spin model approaches: from financial dynamics to opinion formation" (H 0104)
- "DFT approach to skyrmionic spin textures" (H 1012)
- "Electro Chemistry 4 Condensed Matter Physicists" (H 1058)

Welcome Evening
Date: Sunday, March 15, 19:00 – 21:30
On Sunday evening, the Welcome Evening will be held

in the Lichthof (Atrium) of the Main Building (H). Food, beer, and soft drinks will be served. “Die Vier von der Tanzstelle” will entertain you with music. Do not miss the opportunity to register (15:00 to 19:00) before the official beginning of the conference and to meet people in an informal atmosphere.

Annual General Meeting of the Deutsche Physikalische Gesellschaft 2015

Date: Monday, March 16, 18:00, Room: H 010

The Annual General Meeting of the Deutsche Physikalische Gesellschaft will take place on Monday evening. Members of the DPG are kindly requested to attend the meeting. Please bring your membership card.

Annual General Meetings of the DPG Divisions and Working Groups

Divisions SKM	Date	Time	Location
BP - Biological Physics	Wednesday, 18	19:00 – 20:00	H 1058
CPP - Chemical and Polymer Physics	Wednesday, 18	18:30 – 19:30	C 130
DF - Dielectric Solids	Wednesday, 18	19:00 – 20:00	EB 107
DS - Thin Films	Wednesday, 18	19:00 – 20:00	H 0111
DY - Dynamics and Statistical Physics	Thursday, 19	18:00 – 19:00	BH-N 334
HL - Semiconductor Physics	Thursday, 19	18:00 – 19:00	EW 015
KR - Crystallography	Wednesday, 18	19:00 – 20:00	EB 107
MA - Magnetism	Thursday, 19	18:00 – 19:00	H 0110
MM - Metal and Material Physics	Wednesday, 18	20:00 – 21:00	TC 006
O - Surface Science	Thursday, 19	19:00 – 19:30	HE 101
SOE - Physics of Socio-economic Systems	Wednesday, 18	18:35 – 19:30	MA 001

TT - Low Temperature Physics	Thursday, 19	18:45 – 20:00	H 3005
VA - Vacuum Science and Technology	Monday, 16	16:00	HFT-FT 131
Other Divisions			
GP - History of Physics	Tuesday, 17	12:30 – 13:30	HL 001
GR - Gravitation and Relativity	Thursday, 19	18:30 – 19:30	H 2013
MI - Microprobes	Monday, 16	17:30	EMH 225
MP - Theoretical and Mathematical Physics	Wednesday, 18	18:00 – 19:00	HFT-FT 101
Working Groups			
AGA - on Physics and Disarmament	Thursday, 19	18:00 – 19:00	EMH 225
AGI - on Information	Wednesday, 18	15:00 – 16:00	TA 251
AGPhil- on Philosophy of Physics	Thursday, 19	19:15 – 20:00	A 060

EinsteinSlam
Date: Monday, March 16, 20:00, Location: Urania
(An der Urania 17, walking distance from subway station Wittenbergplatz, which is two subway stations from Ernst-Reuter-Platz – 4 minutes by subway)

EinsteinSlam is the competitive art of making complex science accessible to a broad audience. There are just 10 minutes for every attendee to present his / her self-made performance. The event will finish with a public poll in order to evaluate if a particular contribution was either instructive and amusing or rather should have never been performed. All presentations will be given in German. For more information please see www.einstein-slam.de .

Festakt

Deutsche Physikalische Gesellschaft

Preisverleihung

Max-Planck-Medaille 2015
Prof. Dr. Viatcheslav F. Mukhanov, Ludwig-Maximilians-Universität München

Stern-Gerlach-Medaille 2015
Prof. Dr. Karl Jakobs, Albert-Ludwigs-Universität Freiburg

Walter-Schottky-Preis 2015
Dr. Frank Pollmann, Max-Planck-Institut für Physik komplexer Systeme, Dresden und Dr. Andreas Schnyder, Max-Planck-Institut für Festkörperforschung, Stuttgart

Dissertationspreis der Sektion Kondensierte Materie

Dissertationspreis der Fachverbände Gravitation und Relativitätstheorie, Hadronen und Kerne und Teilchenphysik

Festvortrag

„From Laser Light to Brain Dynamics"
Prof. Dr. Hermann Haken, Universität Stuttgart

Weitere Informationen auf Seite 22 in diesem Buch.

Dienstag, 17. März 2015, 16:15 – 18:35 Uhr
Audimax

DPG

Ceremonial Session with Award Ceremony (in German language)
Festakt der Deutschen Physikalischen Gesellschaft
Am Dienstag, den 17. März 2015 um 16:15 – 18:35 Uhr findet im Audimax (H 0105) der Festakt der Deutschen Physikalischen Gesellschaft statt.

Musik

Eröffnung
durch den örtlichen Tagungsleiter
Prof. Dr. Eckehard Schöll, Technische Universität Berlin

Begrüßung
durch den Präsidenten der
Technischen Universität Berlin
Prof. Dr. Christian Thomsen

Ansprache
durch den Präsidenten der
Deutschen Physikalischen Gesellschaft
Prof. Dr. Edward G. Krubasik

durch eine Vertreterin oder einen Vertreter der Politik (angefragt)

Musik

Preisverleihung

Vergabe der Max-Planck-Medaille 2015
an Prof. Dr. Viatcheslav F. Mukhanov, Ludwig-Maximilians-Universität München

Vergabe der Stern-Gerlach-Medaille 2015
an Prof. Dr. Karl Jakobs, Albert-Ludwigs-Universität Freiburg

Vergabe des Walter-Schottky-Preises 2015
an Dr. Frank Pollmann, Max-Planck-Institut für Physik komplexer Systeme Dresden und
an Dr. Andreas Schnyder, Max-Planck-Institut für Festkörperforschung Stuttgart

Vergabe der Dissertationspreise der

Sektion Kondensierte Materie (SKM) und der Fachverbände Gravitation und Relativitätstheorie, Hadronen und Kerne und Teilchenphysik
(Die Preisträger/innen werden nach den jeweiligen Dissertationspreissymposien ernannt)

Musik

Festvortrag
Prof. Dr. Dr. Hermann Haken, Universität Stuttgart
"From Laser Light to Brain Dynamics"

The laureates of the Deutsche Physikalische Gesellschaft 2015 are:

Max-Planck-Medal
Prof. Dr. Viatcheslav F. Mukhanov, Ludwig-Maximilians-Universität München
Prize talk: Thursday, March 19, 13:15 – 13:45, H 0105
Title: "Quantum Universe"

Stern-Gerlach-Medal
Prof. Dr. Karl Jakobs, University of Freiburg
Prize talk: has been held during the DPG Spring Meeting in Wuppertal (March 9 – 13, 2015)

Walter-Schottky-Prize
Dr. Frank Pollmann, Max-Planck-Institute for the Physics of Complex Systems, Dresden
Prize talk: Tuesday, March 17, 14:30 – 15:00, H 0104
Title: "Symmetry Protected Topological Phases in One-Dimensional Systems"

Dr. Andreas Schnyder, Max Planck Institute for Solid State Research, Stuttgart
Prize talk: Tuesday, March 17, 14:00 – 14:30, H 0104
Title: "Classification of topological quantum matter with symmetries"

Gustav-Hertz-Prize
Dr. Daniela Dorner, University of Würzburg and
Dr. Thomas Bretz, ETH Zürich / RWTH Aachen
Prize talks: have been held during the DPG Spring Meeting in Wuppertal (March 9 – 13, 2015)

Robert-Wichard-Pohl-Prize
Dr. Robert Moshammer, Max Planck Institute for Nuclear Physics, Heidelberg
Prize talk: Monday, March 16, 13:00 – 13:25, H 0105
Title: "Atomic and Molecular Reactions in Slow-Motion"

Prof. Dr. Reinhard Dörner, Goethe-University Frankfurt/M.
Prize talk: Monday, March 16, 13:25 – 13:50, H 0105
Title: "The Power of Coincidence"

Hertha-Sponer-Prize
Dr. Ilaria Zardo, Technical University of Eindhoven, Netherland
Prize talk: Monday, March 16, 13:15 – 13:45, H 0104
Title: "Nanophononics: investigation and manipulation of lattice dynamics and phonon transport at nanoscale level"

Georg-Simon-Ohm-Prize
Dipl.-Ing. (FH) Maik Schönfeld, Westsächsische Hochschule Zwickau
Prize talk: Thursday, March 19, 13:15 – 13:45, EW 201
Title: "Theoretische Beschreibung des Trocknungsverhaltens dicker Photoresistschichten"

Georg-Kerschensteiner-Prize
Prof. Dr. Manuela Welzel-Breuer and Dr. Elmar Breuer, Pädagogische Hochschule Heidelberg
Prize talks: have been held during the DPG Spring Meeting in Wuppertal (March 9 – 13, 2015)

Max-Born-Prize
Prof. Dr. Andrea Cavalleri, Max-Planck-Institute for the Structure and Dynamics of Matter, Hamburg and University of Oxford
Combined award with the Institute of Physics
Prize talk: Wednesday, March 18, 13:15 – 13:45, H 0105
Title: "Light control of functional materials"

Gentner-Kastler-Prize
Prof. Dr. Tilman Pfau, University of Stuttgart
Combined award with the Société Française de Physique – will be awarded in France in Summer 2015

Herbert-Walther-Prize
Prof. Dr. Peter Toschek, University of Hamburg
Combined award with the Optical Society of America (OSA) – will be awarded in Munich in June 2015

Schülerinnen- und Schülerpreis
45. Internationale PhysikOlympiade 2014
Lars Dehlwes, Erlangen
Markus Helbig, Berlin
Maximilian Keitel, Markkleeberg

Lingyun Li, Wuppertal
Morian Sonnet, Sibbesse

Schülerinnen- und Schülerpreis
27th International Young Physicists' Tournament (IYPT 2014)
Tobias Gerbracht, Wuppertal
Arnse Hensel, Borken
Jonas Landgraf, Weiden i.d.Opf.
Vincent Stimper, Neufahrn
Felix Wechsler, Spalt

Young Academic Awards of the Sections and Divisions of the DPG, Prize Talks:

SKM Dissertation Prize 2015
Date Monday, March 16
Time 11:00 – 12:40
Room HE 101
Talks by the four finalists will be given.
The laureate will be chosen after the SKM Dissertation Prize Symposium and announced during the ceremonial session, Tuesday March 17, 17:30 in lecture hall H 0105.

Dissertation Prize of the Divisions Gravitation and Relativity, Hadronic and Nuclear Physics and Particle Physics 2015
Date Monday, March 16
Time 15:00 – 17:30
Room HFT-FT 101
Talks by the four finalists will be given.
The laureate will be chosen after the Dissertation Prize Symposium and announced during the ceremonial session, Tuesday March 17, 17:30 in lecture hall H 0105.

Young Scientist Award for Socio- and Econophysics 2015 (Division SOE)
Date Monday, March 16
Time 17:00
Room MA 001
Laureate Prof. Dr. Matjaz Perc, Maribor, Slovenia
Title "For cooperation please add: Carrots, sticks, both, or neither?"

Thyssen-Krupp Electrical Steel Dissertation Prize 2015 (Division MA)

Date Monday, March 16
Time 09:30 – 11:30
Room EB 202

The laureate will be chosen after the session MA 5; the prize will be awarded subsequently to the session.

Gerhard Ertl Young Investigator Award 2015 (Division O)

Date Thursday, March 19
Time 10:30
Room MA 042

The laureate will be chosen after the session O 81; the prize will be awarded subsequently to the session.

Gaede-Prize 2015 (Award of the Deutsche Vakuumgesellschaft)

Date Wednesday, March 18
Time 13:15
Room HE 101
Laureate Dr. Wilhelm Auwärter, Technische Universität München
Title "Porphyrin molecules at interfaces"

Public Evening Talk

Wednesday, March 18, 20:00 to 21:00, Urania
(An der Urania 17, walking distance from subway station Wittenbergplatz, which is two subway stations from Ernst-Reuter-Platz – 4 minutes by subway)
Prof. Dr. Theo Geisel from the Max-Planck-Institut für Dynamik und Selbstorganisation Göttingen, will speak about:
"Musikalische Rhythmen und Algorithmen: Physiker auf anderen Wegen"

Max-von-Laue-Lecture

Wednesday, March 18, 18:00, H 0105
Prof. Dr. Frank N. von Hippel from the Princeton University, Princeton, New Jersey, USA will speak about:
"Unmaking the Bomb: A Fissile Material Approach to Nuclear Disarmament and Nonproliferation"

Lise-Meitner-Lecture
Thursday, March 19, 18:00, H 0105
Prof. Dr. Cornelia Denz from the Westfälische Wilhelms-Universität Münster will speak about:
"Material in neuem Licht – wie maßgeschneidertes Licht Materie strukturieren und anordnen kann"

The Public Evening Talk, Max-von-Laue, and Lise-Meitner-Lecture talks are open for all conference participants and interested public. The entrance is free.

Lab Tours
Several tours to institutes will be offered to interested participants. Please ask at the information desk for more details.

Job Market
During the conference various companies will present their working fields and career opportunities to all interested participants.
Room: PC 203

Programme:

Monday, March 16

12:00 – 12:30 DESY PIER Helmholtz-Graduate School

Tuesday, March 17

12:00 – 13:00 Oxford Instruments Omicron NanoScience
13:15 – 14:15 Basycon Unternehmensberatung GmbH
14:30 – 15:30 McKinsey & Company, Inc.

Wednesday, March 18

12:00 – 13:00 d-fine GmbH
13:15 – 14:15 Forschungszentrum Jülich GmbH
14:30 – 15:30 SFB/TR 88: "3MET", Kaiserslautern/KIT

Thursday, March 19

13:15 – 14:15 The Boston Consulting Group GmbH
14:30 – 15:30 Siemens Management Consulting

The presentations will last for about 30 minutes plus discussion. Afterwards there will be time for personal conversations in room H 3012. For additional information and contacts refer to the information board in front of the conference office.

“Role models”-Exhibition
From Monday, March 16, to Friday, March 20, there will be an exhibition of 18 posters presenting biographies of “role model” female physicists. It is titled “Lise Meitners Töchter – Physikerinnen stellen sich vor” and aims to encourage women to choose a profession within the field of natural sciences. The exhibition is located in the Main Building (Hauptgebäude H) near the south main entrance towards the campus. It is permanently open to the general public from Monday, March 16 to Friday, March 20, 9:00 – 19:00 (on Friday March 20, 9:00 – 14:00). The “Role models”-Exhibition is free of charge.

Exhibition of Scientific Instruments and Literature
From Tuesday, March 17 to Thursday, March 19 there will be an exhibition of scientific instruments and literature. The exhibition will take place in the Lichthof, the foyers (ground floor, ground floor right side and 1st floor), as well as in the nearby exhibition tents. More than 100 companies will present their products. A list of exhibitors and plans of the locations can be found at the end of this booklet. Opening hours are Tuesday – Thursday from 9:00 to 17:00; the entrance is free.

Acknowledgement
The organisers and the local secretary want to thank

- Wilhelm and Else Heraeus Foundation, Hanau
- Technische Universität Berlin
- all industrial sponsors (see page 206 in this booklet)

for supporting the conference and all staff who make this conference possible.

Disclaimer of liability
All participants are asked to take care of their wardrobe and valuables. We assume no liability.

Synopsis of the Daily Programme

Sunday, March 15, 2015

Tutorials (TUT)

Sessions

TUT 1 16:00 — 18:30 H 0104
Tutorial: From spin models to macroeconomics (SOE with DY/AGjDPG)

TUT 2 16:00 — 18:30 H 0107
Tutorial: Ferroics (DF with MA/TT)

TUT 3 16:00 — 18:15 H 0110
Tutorial: Nonequilibrium Renormalisation Group Methods (TT)

TUT 4 16:00 — 18:30 H 1012
Tutorial: Density Functional Theory: A Computational Path to Interesting Spin-textures and Novel Skyrmions (MA with TT)

TUT 5 16:00 — 18:25 H 1058
Tutorial: Electro Chemistry 4 Condensed Matter Physicists (HL with MM)

Dielectric Solids Division (DF)

Tutorials

DF 1.1 16:00 — 16:50 H 0107
Fundamentals of ferroelectric materials
•*Susan Trolier-McKinstry*

DF 1.2 16:50 — 17:40 H 0107
Domain walls in multiferroics as functional oxide interfaces
•*Manfred Fiebig*

DF 1.3 17:40 — 18:30 H 0107
Ferroelastic templates for multiferroic domain boundaries
•*Ekhard Salje*

Session

DF 1 16:00 — 18:30 H 0107
Tutorial on Ferroics (DF with MA/TT)

Dynamics and Statistical Physics Division (DY)

Session

DY 1 16:00 — 18:30 H 0104
Tutorial: From spin models to macroeconomics (joint tutorial SOE/DY/jDPG)

Semiconductor Physics Division (HL)

Invited Talks

HL 1.1 16:00 — 16:45 H 1058
Challenges in the theoretical description of structures and processes at electrochemical interfaces
•*Axel Groß*

HL 1.2 16:50 — 17:35 H 1058
Raman under water – Of photons, phonons and the fun of tuning the Fermi level
•*Katrin F. Domke*

HL 1.3 17:40 — 18:25 H 1058
Scanning probe microscopies for electrochemical problems
•*Gunther Wittstock*

Session

HL 1 16:00 — 18:25 H 1058
Tutorial: Electro chemistry 4 condensed matter physicists

Magnetism Division (MA)

Tutorials

MA 1.1 16:05 — 16:50 H 1012
Introduction to Spin-Density-Functional Theory
•*Nicole Helbig*

MA 1.2 16:50 — 17:35 H 1012
Determining chiral magnetism from density functional theory
•*Stefan Blügel*

MA 1.3 17:45 — 18:30 H 1012
Magneto-transport properties in spiralling spin textures
•*Yuriy Mokrousov*

Sessions

MA 1 16:00 — 18:30 H 1012
Tutorial: Density Functional Theory: A computational path to interesting spin-textures and novel skyrmions

MA 2 16:00 — 18:30 H 0107
Tutorial on Ferroics (DF with MA/TT)

Metal and Material Physics Division (MM)

Session

MM 1 16:00 — 18:25 H 1058
Tutorial: Electro Chemistry 4 Condensed Matter Physicists

Physics of Socio-economic Systems Division (SOE)

Tutorials

SOE 1.1 16:00 — 16:50 H 0104
Economics in a nutshell, for physicists
•*Sylvie Geisendorf*

SOE 1.2 16:50 — 17:40 H 0104
Connecting microscopic behavioural economics to macroscopic financial market models
•*Sebastian M. Krause*

SOE 1.3 17:40 — 18:30 H 0104
You are a young and aspiring physicist. Is working at the interface with economics a good idea?
•*Tobias Galla*

Session

SOE 1 16:00 — 18:30 H 0104
Tutorial: From spin models to macroeconomics (SOE, DY, jDPG)

Low Temperature Physics Division (TT)

Tutorials

TT 1.1 16:05 — 16:45 H 0110
From Lunar Motion to Real Time Evolution of Quantum Many-Body Systems
•*Stefan Kehrein*

TT 1.2 16:50 — 17:30 H 0110
Functional Renormalisation Group Approach to Nonequilibrium Transport through Mesoscopic Systems
•*Severin Georg Jakobs*

TT 1.3 17:35 — 18:15 H 0110
Real-Time RG: Nonequilibrium Properties of Open Quantum Systems
•*Herbert Schoeller*

Sessions

TT 1 16:00 — 18:15 H 0110
Tutorial: Nonequilibrium Renormalisation Group Methods

TT 2 16:00 — 18:30 H 0107
Tutorial: Ferroics (organised by DF)

TT 3 16:00 — 18:30 H 1012
Tutorial: Density Functional Theory: A Computational Path to Interesting Spin-Textures and Novel Skyrmions (organised by MA)

Working Group „Young DPG“ (AGjDPG)

Session

AGjDPG 1 16:00 — 18:30 H 0104
Tutorial: From spin models to macroeconomics (SOE, DY, jDPG)

Welcome Evening (for registered participants only)

19:00 — 21:30 Lichthof

AiW DPG

Industrietag 2015

„Licht als Werkzeug“

Mittwoch, 25. März 2015
9:00 bis 17:00
Im Rahmen der DPG-Frühjahrstagung der Sektion AMOP
Universität Heidelberg

Der Industrietag bietet interessante und praxisnahe Einblicke in aktuelle Einsatzbereiche für Licht als Werkzeug: von der Quelle bis zu Anwendungen in Spektroskopie, Medizin und Medizintechnik, Sensorik, Materialbearbeitung bis zur Beleuchtung. Hochrangige Vertreter aus der Industrie, die selbst Physiker sind und in diesem Bereich arbeiten, geben einen Überblick über technische Entwicklungen sowie die facettenreichen Möglichkeiten für Physiker in der Industrie, die über eine reine Forschungsarbeit im Labor hinausgehen. Das anschließende Zusammensein bei Bier und Brezeln bietet Gelegenheit, mit den Referenten direkt zu diskutieren, Fragen an sie zu stellen und Kontakte zu knüpfen.

INTERNATIONAL YEAR OF LIGHT 2015

Programm und Infos:
www.dpg-aiw.de

Monday, March 16, 2015

Plenary Talks, Prize Talks, Special Talk

PV I 08:30 — 09:15 H 0105
Force and Function: Single Molecule Biophysics of Molecular Interactions
•*Hermann E. Gaub*

PV II 13:00 — 13:25 H 0105
Atomic and Molecular Reactions in Slow-Motion
•*Robert Moshammer*
(Laureate of the Robert-Wichard-Pohl-Prize)

PV III 13:15 — 13:45 H 0104
Nanophononics: investigation and manipulation of lattice dynamics and phonon transport at nanoscale level
•*Ilaria Zardo*
(Laureate of the Hertha-Sponer-Prize)
Simone Assali, Sara Yazji, Stefan Funk, Milo Y. Swinkels, Rob W. van der Heijden, Erik P. A. M. Bakkers, Gerhard Abstreiter

PV IV 13:15 — 13:45 HE 101
Inside PRL
•*Reinhardt Schuhmann*

PV V 13:25 — 13:50 H 0105
The Power of Coincidence
•*Reinhard Doerner*
(Laureate of the Robert-Wichard-Pohl-Prize)

PV VI 14:00 — 14:45 H 0104
Complex functional nanooptics and plasmonics
•*Harald Giessen*

PV VII 14:00 — 14:45 H 0105
The Genesis and Renaissance of General Relativity
•*Jürgen Renn*

Symposium SKM Dissertation Prize 2015 (SYSD)

Invited Talks

SYSD 1.1 11:00 — 11:25 HE 101
Light-matter interaction in mesoscopic transport: The bright side of charge transfer through Josephson junctions
•*Vera Gramich, Björn Kubala, Joachim Ankerhold*

SYSD 1.2 11:25 — 11:50 HE 101
Dynamics of a Quantum Spin Liquid
•*Johannes Knolle*

SYSD 1.3 11:50 — 12:15 HE 101
Dynamics of Complex Autonomous Boolean Networks
•*David P. Rosin*

SYSD 1.4 12:15 — 12:40 HE 101
Dynamical Bloch oscillations and terahertz high-harmonic generation in bulk semiconductors
•*Olaf Schubert, Matthias Hohenleutner, Fabian Langer, Benedikt Urbanek, Christoph Lange, Ulrich Huttner, Daniel Golde, Torsten Meier, Mackillo Kira, Stephan W. Koch, Rupert Huber*

Session

SYSD 1 11:00 — 12:40 HE 101
Symposium SKM Dissertation Prize 2015

Symposium GR-HK-T Disserstation Prize (SYGD)

Session

SYGD 1 15:00 — 17:30 HFT-FT 101
GR-HK-T Dissertation Prize

Symposium Domain Wall Functionality and Engineering in Complex Oxides (SYDW)

Invited Talks

SYDW 1.1 09:30 — 10:00 H 0105
Domain walls: from conductive paths to technology roadmaps
•*Gustau Catalan*

SYDW 1.2 10:00 — 10:30 H 0105
Domain walls and oxygen vacancies – towards reversible control of domain wall conductance
•*Patrycja Paruch*

SYDW 1.3 10:30 — 11:00 H 0105
Novel mechanisms of domain-wall formation
•*Andres Cano*

SYDW 1.4 11:30 — 12:00 H 0105
Novel materials at domain walls
•*Beatriz Noheda*

SYDW 1.5 12:00 — 12:30 H 0105
Controlling and mapping domain wall behaviour in ferroelectrics
•*John Martin Gregg, Jonathan Whyte, Raymond McQuaid, Michael Campbell, Amit Kumar, Roger Whatmore*

Session

SYDW 1 09:30 — 12:30 H 0105
Symposium on Ferroic Domain Walls

Symposium On-Surface Polymerisation (SYOP)

Invited Talks

SYOP 1.1 15:00 — 15:30 H 0105
Formation mechanisms of covalent nanostructures
•*Jonas Björk*

SYOP 1.2 15:30 — 16:00 H 0105
Selective C-H Activation and C-C coupling on Metal Surfaces
•*Lifeng Chi*

SYOP 1.3 16:00 — 16:30 H 0105
On-Surface Synthesis on Insulating Substrates
•*Angelika Kuehnle*

SYOP 1.4 16:45 — 17:15 H 0105
On-surface Polymerisation – a synthetic route to 2D polymers
•*Markus Lackinger*

SYOP 1.5 17:15 — 17:45 H 0105
On-surface azide-alkyne click chemistry and a novel metal-organic network based on Cu adatom trimers
•*Trolle Linderoth*

Session

SYOP 1 15:00 — 17:45 H 0105
On-surface Polymerisation

Biological Physics Division (BP)

Invited Talks

BP 1.1 09:30 — 10:00 H 1028
Light sheet-based fluorescence microscopy for quantitative biology
•*Ernst H.K. Stelzer*

BP 7.1 14:30 — 15:00 H 1028
Super-resolution imaging of small, fast moving cellular structures
•*Alexander Rohrbach*

Sessions

BP 1 09:30 — 13:00 H 1028
Imaging

BP 2 09:30 — 13:00 H 1058
Neurophysics I

BP 3 09:30 — 12:15 BH-N 243
Statistical Physics of Biological Systems I (joint DY/BP/CPP)

BP 4 09:30 — 12:45 C 130
Colloids and Complex Liquids I
(joint CPP/DY/BP)

BP 5 09:30 — 13:00 C 243
Nanoparticles and Composite Materials I
(joint CPP/BP)

BP 6 12:15 — 13:15 MA 001
Networks: From Topology to Dynamics I
(joint SOE/DY/BP)

BP 7 14:30 — 17:15 H 1028
Superresolution Optical Microscopy
(focus session)

BP 8 14:30 — 17:00 H 1058
Neurophysics II

BP 9 14:30 — 17:15 EB 202
Biomaterials and Biopolymers I
(joint BP/CPP)

BP 10 15:00 — 18:45 C 130
Colloids and Complex Liquids II
(joint CPP/DY/BP)

BP 11 15:00 — 18:45 C 243
Nanoparticles and Composite Materials II
(joint CPP/BP)

BP 12 15:00 — 15:45 MA 001
Evolutionary Game Theory I (joint SOE/BP/DY)

BP 13 17:30 — 19:30 Poster A
Posters: Imaging and Superresolution Optical Microscopy

BP 14 17:30 — 19:30 Poster A
Posters: Neurophysics

BP 15 17:30 — 19:30 Poster A
Posters: Multi-cellular systems

BP 16 17:30 — 19:30 Poster A
Posters: Cell adhesion, mechanics and migration

BP 17 17:30 — 19:30 Poster A
Posters: Protein structure and dynamics

Chemical and Polymer Physics Division (CPP)

Invited Talks

CPP 2.1 09:30 — 10:00 C 264
Polymer films with optically controlled shape and functionality on a nanometer scale
•*Svetlana Santer*

CPP 2.6 11:15 — 11:45 C 264
Field Responses of Magnetic Gels
Rudolf Weeber, Sofia S. Kantorovich, •*Christian Holm*

CPP 3.6 10:45 — 11:15 C 243
Functional Nanocomposites: Disordered media with a cooperative macroscopic action
•*Mady Elbahri*

CPP 6.3 10:00 — 10:30 PC 203
Direct observation of prefreezing at the interface melt-solid in polymer crystallisation
Ann-Kristin Löhmann, Thomas Henze, •*Thomas Thurn-Albrecht*

CPP 13.5 16:00 — 16:30 C 264
Magnetic particles in polymer harness: Modeling mesoscopic magnetomechanics of polymer composites
•*Yuriy Raikher, Oleg Stolbov*

CPP 14.4 16:30 — 17:00 PC 203
Spontaneous symmetry breaking in 2D: Kibble-Zurek mechanism in colloidal monolayers at finite cooling rates
Sven Deutschländer, Georg Maret, •*Peter Keim*

Sessions

CPP 1 09:30 — 12:45 C 130
Colloids and Complex Liquids I
(joint session CPP, BP, DY)

CPP 2 09:30 — 12:30 C 264
Focus: Field Controllable Functional Polymers I

CPP 3 09:30 — 13:00 C 243
Nanoparticles and Composite Materials I
(joint session CPP, BP)

CPP 4 09:30 — 12:15 BH-N 243
Statistical Physics in Biological Systems
(joint session DY, BP, CPP)

CPP 5 09:30 — 12:00 BH-N 334
Anomalous Diffusion (joint session DY, CPP)

CPP 6 09:30 — 11:30 PC 203
Crystallisation, Nucleation and Self Assembly I
(joint session CPP, DY)

CPP 7 09:30 — 13:00 H 2032
Organic Electronics and Photovoltaics

CPP 8 15:00 — 18:45 C 130
Colloids and Complex Liquids II
(joint session CPP, BP, DY)

CPP 9 15:00 — 18:45 C 243
Nanoparticles and Composite Materials II
(joint session CPP, BP)

CPP 10 15:00 — 17:45 H 0105
On-surface Polymerisation

CPP 11 15:00 — 18:45 BH-N 243
Brownian Motion and Transport
(joint session DY, CPP)

CPP 12 15:00 — 19:30 H 2032
Organic Thin Films

CPP 13 15:00 — 18:30 C 264
Focus: Field Controllable Functional Polymers II

CPP 14 15:45 — 18:30 PC 203
Crystallisation, Nucleation and Self Assembly II
(joint session CPP, DY)

CPP 15 16:00 — 19:00 Poster A
P1: Interfaces and Thin Films

Dielectric Solids Division (DF)

Topical Talks

DF 4.1 15:00 — 15:30 EB 107
Domain walls and phase boundaries – new nanoscale functional elements in complex oxides
•*Jan Seidel*

DF 4.4 16:10 — 16:40 EB 107
Field-induced hysteresis of chiral vortices in ferroelectric $SrTiO_3$ twin walls.
•*Ekhard Salje*

DF 4.5 16:50 — 17:20 EB 107
Spintronic functionality of $BiFeO_3$ domain walls
Ji Hye Lee, Ignasi Fina, Dietrich Hesse,
•*Marin Alexe*

DF 4.8 18:00 — 18:30 EB 107
Functional ferroic domain walls – AC & DC transport
•*Lukas M. Eng*

Sessions

DF 2 09:30 — 12:30 H 0105
Symposium on Ferroic Domain Walls

DF 3 11:15 — 13:00 ER 164
Photovoltaics: Kesterites and Less Widely used Materials (HL with DF)

DF 4 15:00 — 18:30 EB 107
Focused Session on Ferroic Domain Walls I (DF with MA)

DF 5 19:00 — 21:00 Poster C
Poster Session on Ferroic Domain Walls – Multiferroics (DF with KR/MA/TT)

DF 6 19:00 — 21:00 Poster C
Poster Session DF

Thin Films Division (DS)

Invited Talk

DS 3.1 15:00 — 15:30 H 2032
Thin film growth studies using time-resolved X-ray scattering
•*Stefan Kowarik*

Sessions

DS 1 09:30 — 13:00 H 2032
Organic Electronics and Photovoltaics

DS 2 09:30 — 13:00 H 0111
Thin Film Characterisation I:
Structure Analysis and Composition

DS 3 15:00 — 19:30 H 2032
Organic Thin Films

DS 4 15:00 — 18:30 H 0111
Thin Film Characterisation II:
Structure Analysis and Composition

DS 5 15:00 — 17:45 A 053
Transport: Topological Insulators 1
(joint session with DS, HL, MA, O)

DS 6 15:00 — 16:45 EW 202
Organic photovoltaics and electronics – mostly cell design
(jointly with CPP, DS)

DS 7 17:00 — 19:00 EW 202
Organic photovoltaics and electronics – mostly properties of the absorber
(jointly with CPP, DS)

DS 8 18:45 — 20:00 H 0111
Application of Thin Films

Dynamics and Statistical Physics Division (DY)

Invited Talks

DY 2.1 09:30 — 10:00 BH-N 243
Chemical warfare and survival strategies in bacterial range expansions
Markus F Weber, Gabriele Poxleitner, Elke Hebisch, Erwin Frey, •Madeleine Opitz

DY 9.1 15:00 — 15:30 BH-N 243
universal statistics of records in random sequences
•*satya majumdar*

Sessions

DY 2 09:30 — 12:15 BH-N 243
Statistical Physics in Biological Systems
(joint session DY/ BP/CPP)

DY 3 09:30 — 12:00 BH-N 334
Anomalous Diffusion (joint session DY/CPP)

DY 4 09:30 — 12:30 BH-N 128
Granular Matter / Contact Dynamics Part I

DY 5 09:30 — 12:45 C 130
Colloids and Complex Liquids I
(joint session CPP/BP/DY)

DY 6 09:30 — 11:30 PC 203
Crystallisation, Nucleation and Self Assembly I
(joint session CPP/ DY)

DY 7 09:30 — 13:00 H 0104
Correlated Electrons: Nonequilibrium Quantum Many-Body Systems 1
(joint session TT/DY)

DY 8 12:15 — 13:15 MA 001
Networks – From Topology to Dynamics Part I
(joint session SOE/ DY / BP)

DY 9 15:00 — 18:45 BH-N 243
Brownian Motion and Transport
(joint session DY/ CPP/ TT)

DY 10 15:00 — 18:30 BH-N 334
Quantum Dynamics, Decoherence and Quantum Information (joint session DY/ TT)

DY 11 15:00 — 18:45 C 130
Colloids and Complex Liquids II
(joint session CPP/ DY)

DY 12 15:30 — 17:00 BH-N 128
Granular Matter / Contact Dynamics Part II

DY 13 15:45 — 18:30 PC 203
Crystallisation, Nucleation and Self Assembly II
(joint session CPP/DY)

Semiconductor Physics Division (HL)

Invited Talks

HL 4.1 09:30 — 10:00 EW 201
Exploring the optical properties of 1D nanomaterials at sub-nanometer scale with a direct correlation to its structure at atomic scale
•*Jordi Arbiol*

HL 4.7 11:30 — 12:00 EW 201
Studying single semiconductor nanowires using a hard X-ray nanoprobe
•*Gema Martinez-Criado*

HL 13.1 15:00 — 15:30 EW 201
Light-matter interaction in wire cavities – from Purcell effect to Bose-Einstein condensates
•*Rüdiger Schmidt-Grund*

HL 13.7 17:00 — 17:30 EW 201
Quantum Transport in Core/Shell Semiconductor Nanowires
•*Thomas Schäpers, Fabian Haas, Patrick Zellekens, Torsten Rieger, Tobias Wenz, Yusuf Günel, Önder Gül, Natalia Demarina, Mihail Lepsa, Hans Lüth, Detlev Grützmacher*

HL 15.1 15:00 — 15:30 EW 203
Semiconductor-based plasmonics
•*Fritz Henneberger, Sascha Kalusniak, Sergey Sadofev*

Sessions

HL 2	09:30 — 11:00	ER 164
	Organic-inorganic perovskite semiconductors (with O)	
HL 3	09:30 — 11:30	ER 270
	Graphene: THz, NIR and transport properties (with O/TT)	
HL 4	09:30 — 13:15	EW 201
	Focus Session (with TT): Functional semiconductor nanowires I	
HL 5	09:30 — 11:45	EW 202
	Photovoltaics: CIGS and related compounds	
HL 6	09:30 — 13:00	H 2032
	Organic electronics and photovoltaics (DS with HL/CPP)	
HL 7	09:30 — 13:00	H 3005
	Transport: Quantum coherence and quantum information systems – Theory (TT with HL)	
HL 8	09:30 — 12:00	A 053
	Transport: Spintronics and magnetotransport (TT with HL)	
HL 9	10:00 — 13:00	EW 203
	Quantum dots: Optical properties	
HL 10	11:15 — 13:00	ER 164
	Photovoltaics: Kesterites and less widely used materials (with DF)	
HL 11	11:45 — 13:00	ER 270
	Transition-metal dichalcogenides and boron nitride (with O)	
HL 12	15:00 — 17:15	ER 164
	Graphene: mostly Theory (with O/TT)	
HL 13	15:00 — 18:45	EW 201
	Focus Session (with TT): Functional semiconductor nanowires II	

HL 14 15:00 — 16:45 EW 202
Organic photovoltaics and electronics – mostly cell design (with DS)

HL 15 15:00 — 15:30 EW 203
Invited Talk Fritz Henneberger

HL 16 15:00 — 17:15 H 0110
Transport: Quantum coherence and quantum information systems – Experiments (TT with HL)

HL 17 15:00 — 17:45 A 053
Transport: Topological insulators 1 (TT with DS/HL)

HL 18 15:45 — 17:15 EW 203
Plasmons, plasmonic laser, and spaser

HL 19 17:00 — 19:00 EW 202
Organic photovoltaics and electronics – mostly properties of the absorber (with DS)

HL 20 15:00 — 20:00 Poster B
Poster IA (Ultrafast phenomena; Optical properties; Transport; Theory)

HL 21 15:00 — 20:00 Poster B
Poster IB (Oxide semiconductors; II-VI and group IV semiconductors; Nanotubes and Buckyballs)

Crystallography Division (KR)

Sessions

KR 1 09:30 — 12:30 H 0105
Symposium on Ferroic Domain walls (SYDW)

KR 2 19:00 — 21:00 Poster C
Poster Crystallography

KR 3 19:00 — 21:00 Poster C
Poster Session on Ferroic Domain Walls – Multiferroics (DF jointly with KR, MA, TT)

Magnetism Division (MA)

Invited Talks

MA 4.1 09:30 — 10:00 H 1012
Fabrication of individual nano-magnets and nano-magnet arrays by Focused Electron Beam Induced Deposition (FEBID)
•*Andreas Berger*

MA 9.1 15:00 — 15:30 H 0112
Ultra-fast three terminal perpendicular Spin-Orbit MRAM
•*Gilles Gaudin, Olivier Boulle, Murat Cubukcu, Marc Drouard, Nicolaï Mikuszeit, Liliana Buda Prejbeanu, Claire Hamelin, Ioan Mihai Miron, Stéphane Auffret, Nathalie Lamard, Marie-Claire Cyrille, Jürgen Langer, Berthold Ocker, Kevin Garello, Can Onur Avci, Manuel Baumgartner, Abhijit Ghosh, Pietro Gambardella*

MA 11.1 15:00 — 15:45 EB 301
Acoustic und standing spin wave modes in ultra-thin 3d metal films
•*Harald Ibach*

MA 11.2 15:45 — 16:15 EB 301
Magnetic structure and magnetic anisotropy on the atomic scale
•*Chunlei Gao*

MA 11.3 16:30 — 17:00 EB 301
Spin-resolved photoelectron spectroscopy with high efficiency and potential of full momentum analysis
•*Shigemasa Suga*

MA 11.4 17:00 — 17:30 EB 301
High-efficiency spin-resolved ARPES with a TOF-based exchange polarimeter
•*Chris Jozwiak*

MA 11.5 17:30 — 18:00 EB 301
Prospects of Multichannel Spin Detection
•*Gerd Schönhense*

Sessions

MA 3 09:30 — 12:45 H 0112
Magnetic Heuslers, Half-metals and Oxides (jointly with TT)

MA 4 09:30 — 12:00 H 1012
Micro- and Nanostructured Materials

MA 5 09:30 — 11:30 EB 202
Thyssen-Krupp Electrical Steel Dissertationspreis

MA 6 09:30 — 12:45 EB 301
Surface Magnetism (Joint Session with O,TT) – Skyrmions

MA 7 11:30 — 13:15 EB 202
Magnetic Semiconductors

MA 8 15:00 — 18:30 EB 107
Focused Session on Ferroic Domain Walls I (DF with MA)

MA 9 15:00 — 18:45 H 0112
Spin Excitations/Spin Torque

MA 10 15:00 — 18:45 H 1012
Magnetic Heuslers, Half-metals, Semiconductors and Oxides

MA 11 15:00 — 18:00 EB 301
Focus: Progress in Spin-Polarized Electron Spectroscopies

MA 12 19:00 — 21:00 Poster C
Poster Session on Ferroic Domain Walls – Multiferroics (DF with KR/MA/TT)

Metal and Material Physics Division (MM)

Invited Talks, Topical Talks

MM 2.1 09:30 — 10:00 TC 006
Atomistic Mechanisms of Hydrogen Embrittlement
•*William Arthur Curtin*

MM 5.1 10:15 — 10:45 TC 006
Atomistic simulations of microstructural defects and their role in H trapping and diffusion
•*Matous Mrovec, Davide Di Stefano, Christian Elsässer, Roman Nazarov, Tilmann Hickel*

MM 9.1 11:45 — 12:15 TC 006
Multiscale modeling of hydrogen-dislocation interaction
•*Gerard Paul Leyson, Blazej Grabowski, Jörg Neugebauer*

MM 12.1 15:00 — 15:30 TC 006
Insights into phase transformations and microstructure development of TiAl alloys by use of advanced characterisation techniques
•*Florian Pyczak*

MM 15.1 15:45 — 16:15 TC 006
On the combination of different experimental techniques to increase understanding on the hydrogen/material interaction in iron based alloys
Tom Depover, Elien Wallaert, Aurélie Laureys, Emilie Van den Eeckhout, •*Kim Verbeken*

Sessions

MM 2 09:30 — 10:00 TC 006
Invited talk Curtin

MM 3 10:15 — 11:45 H 0106
Microstructure and Phase Transformations

MM 4 10:15 — 11:45 H 0107
Liquid and Amorphous Metals I: Fragility and Dynamics of Metallic Glasses

MM 5 10:15 — 11:45 TC 006
Hydrogen in Metals: Ab initio approaches

MM 6 10:15 — 11:45 TC 010
Functional Materials I: Battery Materials

MM 7 11:45 — 13:00 H 0106
Microstructure and Phase Transformations II

MM 8 11:45 — 13:00 H 0107
Liquid and Amorphous Metals II: Structure Formation in Metallic Glasses

MM 9 11:45 — 13:15 TC 006
Hydrogen in metals II: Multiscale simulations

MM 10 11:45 — 13:00 TC 010
Functional materials II: Battery Materials

MM 11 14:30 — 17:15 EB 202
Biomaterials and Biopolymers I
(joint BP/CPP)

MM 12 15:00 — 15:30 TC 006
Invited talk Pyczak

MM 13 15:45 — 16:45 H 0106
Microstructure and Phase Transformations III

MM 14 15:45 — 17:45 H 0107
Transport I: Diffusion

MM 15 15:45 — 18:00 TC 006
Hydrogen in metals III: Experiments

MM 16 15:45 — 17:45 TC 010
Functional materials III:
Sensors and Actuators

MM 17 18:00 — 20:00 Poster E
Postersession I

Surface Science Division (O)

Invited Talks

O 1.1 09:30 — 10:15 HE 101
The Smallest Surface Adsorbed Magnets
•*Harald Brune*

O 2.1 10:30 — 11:00 MA 004
Unusual magnetic properties of Fe and Co atoms on MgO
•*Andreas Heinrich*

O 2.9 12:45 — 13:15 MA 004
Interface-induced magnetic skyrmions studied with spin-polarized STM
•*Kirsten von Bergmann*

O 6.3 11:00 — 11:30 MA 043
CO oxidation over a Pt/Fe_3O_4 model catalyst: Watching Mars van Krevelen at work
•*Gareth Parkinson*

O 13.1 15:00 — 15:30 MA 041
Advanced spin-resolved momentum microscopy
•*Christian Tusche*

Sessions

O 1 09:30 — 10:15 HE 101
Overview Talk (Harald Brune)

O 2 10:30 — 13:15 MA 004
Surface Magnetism and Spin Phenomena

O 3 10:30 — 13:00 MA 005
Inorganic/Organic Interfaces: Growth I

O 4 10:30 — 13:15 MA 041
Electronic Structure of Surfaces I

O 5 10:30 — 13:00 MA 042
Plasmonics: Nanoantennas, Nanoparticles

O 6 10:30 — 13:15 MA 043
Catalysis

O 7 09:30 — 11:30 ER 270
Graphene: THz, NIR and Transport Properties (HL with O/TT)

O 8 09:30 — 11:00 ER 164
Organic-Inorganic Perovskite Semiconductors (HL with CPP)

O 9 11:45 — 13:00 ER 270
Transition-Metal Dichalcogenides and Boron Nitride (HL with O/TT)

O 10 15:00 — 18:30 HE 101
Metal/Water Interfaces: Structure and Reactivity

O 11 15:00 — 18:00 MA 004
Ultrafast and Nonlinear Plasmonics

O 12 15:00 — 18:15 MA 005
Inorganic/Organic Interfaces: Growth II

O 13 15:00 — 18:15 MA 041
Electronic Structure of Surfaces II

O 14 15:00 — 18:00 MA 042
Oxide Surfaces: Adsorption and Reactivity

O 15 15:00 — 18:15 MA 043
Scanning Probe Techniques: STM/AFM

O 16 15:00 — 17:15 ER 164
Graphene: Theory (HL with O/TT)

Physics of Socio-economic Systems Division (SOE)

Prize Talk, Invited Talk

SOE 7.1 16:00 — 16:45 MA 001
Computational Social Science: Exciting Progress and Future Challenges
•*Duncan Watts*

SOE 7.2 17:00 — 17:45 MA 001
For cooperation please add: Carrots, sticks, both, or neither?
•*Matjaz Perc*
(Laureate of the Young Scientist Award for Socio- and Econophysics)

Sessions

SOE 2 09:30 — 10:00 MA 001
Future Visions of Socio- and Econophysics

SOE 3 10:00 — 10:45 MA 001
Evolutionary Dynamics of Social Systems

SOE 4 10:45 — 12:15 MA 001
Financial Markets and Risk Management

SOE 5 12:15 — 13:15 MA 001
Networks: From Topology to Dynamics I
(joint session SOE / DY / BP)

SOE 6 15:00 — 15:45 MA 001
Evolutionary Game Theory I
(joint session SOE /BP/DY)

SOE 7 16:00 — 17:45 MA 001
Prize Session: Young Scientist Award for Socio- and Econophysics (YSA)

SOE 8 18:00 — 20:00 Poster E
Poster

Low Temperature Physics Division (TT)

Invited Talks, Topical Talks

TT 4.1 09:30 — 10:00 H 0104
Entanglement in the Many-Body Localised Phase and Transition
•*Jens H. Bardarson*

TT 15.1 15:00 — 15:30 H 0104
Skyrmion Dynamics
•*Yoshinori Tokura*

TT 15.2 15:30 — 16:00 H 0104
Topological Transport Phenomena in Magnetic Skyrmion Matter
•*Markus Garst*

TT 15.3 16:00 — 16:30 H 0104
Interface Induced Individual Skyrmions in Thin Films and Multilayers
K. Bouzehouane, V. Cros, C. Deranlot, •A. Fert, K. Garcia, C. Moreau-Luchaire, N. Reyren, J.-M. Sampaio, N. van Horne, M. Chshiev, Hongxin Yang, A. Thiaville, S. Rohart, C. Moutafis, C.A.F. Vaz, P. Warnicke, J. Raabe, M. Weigand

TT 15.4 16:45 — 17:15 H 0104
Magnetic Skyrmions and Chiral Spin Structures in Ultra-Thin Films
•*Stefan Blügel*

TT 15.5 17:15 — 17:45 H 0104
Racetrack Memory: Highly Efficient Current Induced Domain Wall Motion in Synthetic Antiferromagnetic Racetracks
•*Stuart Parkin*

TT 20.1 15:00 — 15:30 A 053
The Wires' Approach to Topological Insulators
•*Yuval Oreg*

Sessions

TT 4 09:30 — 13:00 H 0104
Correlated Electrons: Nonequilibrium Quantum Many-Body Systems 1 (jointly with DY)

TT 5 09:30 — 13:00 H 0110
Correlated Electrons: Spin Systems and Itinerant Magnets – Frustrated Magnets 1 (jointly with MA)

TT 6 09:30 — 12:30 H 2053
Superconductivity: Cryodetectors

TT 7 09:30 — 13:00 H 3005
Transport: Quantum Coherence and Quantum Information Systems – Theory (jointly with HL, MA)

TT 8 09:30 — 12:30 H 3010
Low-Dimensional Systems: Oxide Hetero-Interfaces

TT 9 09:30 — 12:00 A 053
Transport: Spintronics and Magnetotransport (jointly with HL, MA)

TT 10 09:30 — 13:00 H 2032
Organic Electronics and Photovoltaics (organised by DS)

TT 11 09:30 — 12:45 H 0112
Magnetic Heuslers, Half-Metals and Oxides (jointly with MA)

TT 12 09:30 — 11:30 ER 270
Graphene: THz, NIR, and Transport Properties (jointly with HL, O)

TT 13 09:30 — 13:15 EW 201
Focus Session: Functional Semiconductor Nanowires I (organised by HL)

TT 14 09:30 — 12:45 EB 301
Surface Magnetism – Skyrmions (jointly with MA, O)

TT 15 15:00 — 17:45 H 0104
Focus Session: Skyrmionics: Future of Spintronics? (jointly with MA)

TT 16 15:00 — 17:15 H 0110
Transport: Quantum Coherence and Quantum Information Systems – Experiments (jointly with HL, MA)

TT 17 15:00 — 18:45 H 2053
Superconductivity: Properties and Electronic Structure

TT 18 15:00 — 18:30 H 3005
Correlated Electrons: Spin Systems and Itinerant Magnets – Frustrated Magnets 2 (jointly with MA)

TT 19 15:00 — 18:00 H 3010
Correlated Electrons: Nonequilibrium Quantum Many-Body Systems 2 (jointly with DY)

TT 20 15:00 — 17:45 A 053
Transport: Topological Insulators 1 (jointly with DS, HL, MA, O)

TT 21 15:00 — 18:00 Poster B
Superconductivity: Poster Session

TT 22 15:00 — 18:00 Poster B
Other Low Temperature Topics: Poster Session

TT 23 15:00 — 18:45 H 1012
Magnetic Heuslers, Half-Metals, Semiconductors, and Oxides (organised by MA)

TT 24 15:00 — 18:45 EW 201
Focus Session: Functional Semiconductor Nanowires II (organised by HL)

TT 25 15:00 — 18:45 BH-N 243
Brownian Motion and Transport
(jointly with DY, CPP)

TT 26 15:00 — 18:30 BH-N 334
Quantum Dynamics, Decoherence and Quantum Information (jointly with DY)

TT 27 15:00 — 17:15 ER 164
Graphene: Theory (jointly with HL, O)

TT 28 19:00 — 21:00 Poster C
Poster Session on Ferroic Domain Walls – Multiferroics (jointly with DF, KR, MA)

Vacuum Science and Technology Division (VA)

Invited Talks

VA 1.1 10:00 — 10:40 HFT-FT 131
Vacuum Pumping of Fusion Reactors: The KALPUREX-Process
•*Thomas Giegerich, Christian Day*

VA 1.2 10:40 — 11:20 HFT-FT 131
Radonprozesse im KATRIN-Experiment
•*Joachim Wolf*

Sessions

VA 1 10:00 — 11:40 HFT-FT 131
Vacuum systems and tools

VA 2 14:00 — 16:00 HFT-FT 131
Vacuum based manufacturing, coating and analysis

16:00 HFT-FT 131
Annual General Meeting of the Vacuum Science and Technology Division

History of Physics Division (GP)

Invited Talks

GP 2.1 15:15 — 16:00 HL 001
Galilei, der Ingenieur
•*Matteo Valleriani*

GP 3.1 16:30 — 17:15 HL 001
Der erste Weltkrieg und seine Auswirkungen auf die deutschen Physiker
•*Stefan Wolff*

Sessions

GP 1 15:00 — 15:15 HL 001
Opening

GP 2 15:15 — 16:30 HL 001
Frühe Neuzeit bis I. Weltkrieg

GP 3 16:30 — 18:15 HL 001
I. Weltkrieg

Gravitation and Relativity Division (GR)

Invited Talks

GR 1.1 09:30 — 10:10 H 2013
Was Einstein Right? A Centennial Assessment
•*Clifford Will*

GR 1.2 10:10 — 10:50 H 2013
Precision tests of General Relativity using cosmic clocks
•*Michael Kramer*

GR 1.3 11:10 — 11:50 H 2013
Results from the Wilkinson Microwave Anisotropy Probe
•*Eiichiro Komatsu*

GR 1.4 11:50 — 12:30 H 2013
General Relativity as everyday practical tool: time, navigation and geodesy
•*Claus Lämmerzahl*

Sessions

GR 1 09:30 — 12:30 H 2013
Invited Talks 1

GR 2 15:00 — 15:40 H 2013
Experimental Tests

GR 3 15:40 — 17:30 H 2013
Classical General Relativity

Microprobes Division (MI)

Invited Talks

MI 1.1 09:30 — 10:15 EMH 225
High-resolution electron cryo-microscopy of macromolecular protein complexes
•*Werner Kühlbrandt*

MI 1.2 10:15 — 11:00 EMH 225
Electron Cryotomography of Archaea
•*Bertram Daum*

MI 3.1 15:00 — 15:45 EMH 225
Orientations, texture, properties – applications of electron backscatter diffraction
•*Karsten Kunze*

Sessions

MI 1 09:30 — 11:45 EMH 225
Microanalysis and Microscopy of Biological Materials

MI 2 12:00 — 13:15 EMH 225
Analytical Transmission Electron Microscopy and Atom Probe Tomography

MI 3 15:00 — 16:45 EMH 225
Analytical Scanning Electron Microscopy

17:30 EMH 225
Annual General Meeting of the Microprobes Division

Working Group on Energy (AKE)

Invited Talks

AKE 1.1 09:30 — 10:00 A 151
Perspectives and challenges of thin-film crystalline silicon solar cells on glass
•*Bernd Rech, Daniel Amkreutz, Jan Haschke, Stefan Gall, Christiane Becker, Onno Gabriel, Rutger Schlatmann*

AKE 1.3 10:15 — 10:45 A 151
Neue optoelektronische Materialien und Verfahren für die Photovoltaik
•*Christoph Brabec*

AKE 2.1 11:30 — 12:00 A 151
Konzepte zur Kostensenkung solarthermischer Kraftwerke
•*Robert Pitz-Paal*

AKE 3.1 12:00 — 12:30 A 151
Deep geothermal fluid resources: Energetic use and beyond
•*Harald Milsch*

AKE 4.1 15:00 — 15:30 A 151
Nuclear fission energy: new build, operation, fuel cycle and decommissioning in the international perspective
•*Stefan Niessen*

AKE 5.1 15:30 — 16:00 A 151
Wendelstein 7-X , ein Konzept für ein stationäres Fusionsplasma
•*Robert Wolf, W7-X Team*

AKE 5.2 16:00 — 16:30 A 151
Laserfusion: status and concepts for new laser drivers and ignition physics
•*Bjorn Manuel Hegelich*

AKE 6.1 16:45 — 17:15 A 151
„Fracking“ – Routine oder Risikotechnologie?
•*Michael Kosinowski*

AKE 6.2 17:15 — 17:45 A 151
Geological carbon storage: processes, risks and opportunities
•*Holger Ott*

Sessions

AKE 1 09:30 — 11:00 A 151
Photovoltaics

AKE 2 11:30 — 12:00 A 151
Solarthermal Energy Systems

AKE 3 12:00 — 12:30 A 151
Geothermal Energy

AKE 4 15:00 — 15:30 A 151
Nuclear Fission Energy

AKE 5 15:30 — 16:30 A 151
Nuclear Fusion Research

AKE 6 16:45 — 17:45 A 151
Fossile Energy Systems

Working Group on Physics and Disarmament (AGA)

Sessions

AGA 1 15:00 — 15:15 HL 001
Opening

AGA 2 15:15 — 16:30 HL 001
Early Modern to the I. World War

AGA 3 16:30 — 18:15 HL 001
I. World War

Working Group „Young DPG“ (AGjDPG)

Session

AGjDPG 2 20:00 — 21:00 Urania
EinsteinSlam in der Urania

Working Group on Philosophy of Physics (AGPhil)

Sessions

AGPhil 13 14:00 — 15:30 A 060
Alternative Approaches I

AGPhil 14 16:30 — 18:30 A 060
Alternative Approaches II

Job Market

12:00 — 12:30 PC 203
DESY PIER Helmholtz-Graduate School

Mon

„Role model“-Exhibition

09:00 — 19:00 Main Building

Annual General Meeting of the Deutsche Physikalische Gesellschaft (for DPG members only)

18:00 H 0110

Tuesday, March 17, 2015

Plenary Talks, Prize Talks, Special Talk

PV VIII 08:30 — 09:15 H 0105
Magnetic Materials for Green Technologies
•*Oliver Gutfleisch*

PV IX 13:00 — 13:45 H 0105
Nanoscopy with focused light
•*Stefan Hell*

PV X 14:00 — 14:30 H 0104
Classification of topological quantum matter with symmetries
•*Andreas Schnyder*
(Laureate of the Walter-Schottky-Prize)

PV XI 14:30 — 15:00 H 0104
Symmetry Protected Topological Phases in One-Dimensional Systems
•*Frank Pollmann*
(Laureate of the Walter-Schottky-Prize)

PV XII 15:15 — 15:45 H 0104
The German Research Foundation – a short overview
•*Cosima Schuster, Michael Mößle*

Ceremonial Session with Award Ceremony

16:00 H 0105

Ceremonal Session Invited Talk

PV XIII 17:50 — 18:35 H 0105
From laser light to brain dynamics
•*Hermann Haken*

Symposium Frontiers of Light (SYFL)

Invited Talks

SYFL 2.1 13:50 — 14:20 H 0105
Quantum Optomechanics
•*Markus Aspelmeyer*

SYFL 2.2 14:20 — 14:50 H 0105
Single Photons and Spins: The quest for the ultimate quantum tool
•*Joerg Wrachtrup*

SYFL 2.3 14:50 — 15:20 H 0105
Science at the Timescale of the Electron: Tabletop Ultrafast X-rays and Applications in Nano and Materials Science
•*Margaret Murnane*

Sessions

SYFL 1 13:00 — 13:45 H 0105
Plenary Talk Stefan Hell

SYFL 2 13:50 — 15:20 H 0105
Frontiers of Light (SYFL)

Symposium Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-Scale (SYME)

Sessions

SYME 2 10:30 — 13:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale I

SYME 3 14:00 — 15:45 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale II

Symposium Neurophysics: Physical Approaches to Deciphering Neuronal Information Processing (SYNP)

Invited Talks

SYNP 1.1 09:30 — 10:00 H 0105
Connectomics: The dense reconstruction of neuronal circuits
•*Moritz Helmstädter*

SYNP 1.2 10:00 — 10:30 H 0105
Whole-brain imaging and analysis of network activity in behaving zebrafish
•*Misha Ahrens*

SYNP 1.3 10:30 — 11:00 H 0105
Circuit neurophysics: Theory and biophysics of information-flow through large-scale neuronal systems
•*Fred Wolf*

SYNP 1.4 11:15 — 11:45 H 0105
Cognitive devices based on ion currents in oxide thin films
•*Stuart Parkin*

SYNP 1.5 11:45 — 12:15 H 0105
Distributed neuro-physical interfaces: technology and „exciting" biophysics
•*Shy Shoham*

Session

SYNP 1 09:30 — 12:15 H 0105
Symposium Neurophysics (SYNP): Physical Approaches to Deciphering Neuronal Information Processing

Biological Physics Division (BP)

Invited Talks

BP 18.1 09:30 — 10:00 H 1028
Multifaceted BAR-domain proteins to shape cell membranes
Coline Prévost, Mijo Simunovic, Henri-François Renard, Emma Evergren, Harvey McMahon, Ludger Johannes, Jacques Prost, Andrew Callan-Jones, •*Patricia Bassereau*

BP 19.1 09:30 — 10:00 H 1058
Emerging social behaviour during aggregation in Dictyostelium discoideum
Giovanna De Palo, Darvin Yi, Thomas Gregor, •*Robert Endres*

Sessions

BP 18 09:30 — 12:30 H 1028
Membranes and vesicles I (joint BP/CPP)

BP 19 09:30 — 12:45 H 1058
Multi-cellular systems

BP 20 09:30 — 12:30 BH-N 128
Microswimmers, Active Liquids II
(joint DY/BP/CPP)

BP 21 10:15 — 13:15 MA 001
Complex Contagion Phenmomena
(focus session, joint SOE/DY/BP)

BP 22 14:00 — 16:00 Poster A
Posters: Cytoskeletal filaments

BP 23 14:00 — 16:00 Poster A
Posters: Molecular Motors

BP 24 14:00 — 16:00 Poster A
Posters: Membranes and vesicles

BP 25 14:00 — 16:00 Poster A
Posters: DNA/RNA and related enzymes

BP 26 14:00 — 16:00 Poster A
Posters: Statistical Physics of Biological Systems

BP 27 14:00 — 16:00 Poster A
Posters: Complex Fluids and Soft Matter

BP 28 14:00 — 16:00 Poster A
Posters: Biomaterials and Biopolymers

BP 29 14:00 — 16:00 Poster A
Posters: Systems biology

BP 30 14:00 — 16:00 Poster A
Posters: Biotechnology and bioengineering

BP 31 14:00 — 16:00 Poster A
Posters: Modelling of non-linear dynamics in biological movement

BP 32 14:00 — 16:15 MA 001
Evolutionary Game Theory II
(joint SOE/BP/DY)

Chemical and Polymer Physics Division (CPP)

Invited Talks

CPP 26.1 14:00 — 14:30 C 130
Ultrafast Coherent Charge Transfer in Solar Cells and Artificial Light Harvesting Systems
•*Christoph Lienau, Ephraim Sommer, Antonietta de Sio, Ralf Vogelgesang, Margherita Maiuri, Giulio Cerullo, Angel Rubio, Carlo A. Rozzi, Elisa Molinari*

CPP 27.1 14:00 — 14:30 C 243
Structure formation at interfaces: breath figures and beyond
•*Masoud Amirkhani*

Sessions

CPP 16 09:30 — 13:00 C 130
Organic Electronics and Photovoltaics: Transport of Charges – from Molecules to Devices (joint session with HL, TT)

CPP 17 09:30 — 12:30 BH-N 128
Microswimmers (joint session DY, BP, CPP)

CPP 18 09:30 — 10:00 C 243
On-Surface Polymerisation (contributed session to SYOP, joint session CPP, MI)

CPP 19 09:30 — 12:15 A 053
Transport: Graphene
(joint session TT, CPP, DS, DY, HL, MA, O)

CPP 20 09:30 — 12:30 H 1028
Membranes and vesicles I
(joint session BP, CPP)

CPP 21 09:30 — 13:00 C 264
Polymer dynamics

CPP 22 09:30 — 11:30 PC 203
Charged Soft Matter I

CPP 23 10:00 — 12:30 C 243
Interfaces and Thin Films I
(joint session CPP, DS)

CPP 24 10:30 — 12:30 HE 101
Focus session: Structure, chemistry, and ion solvation at solid-liquid interfaces I
(joint session O, CPP)

CPP 25 14:00 — 16:00 HE 101
Focus session: Structure, chemistry, and ion solvation at solid-liquid interfaces II
(joint session O, CPP)

CPP 26 14:00 — 16:00 C 130
Organic Electronics and Photovoltaics: OPV I
(joint session CPP, HL, TT)

CPP 27 14:00 — 16:00 C 243
Interfaces and Thin Films II
(joint session CPP, DS)

CPP 28 14:00 — 16:00 C 264
New Instruments and Methods

CPP 29 14:30 — 16:15 BH-N 243
Reaction-Diffusion Systems
(joint session DY, CPP)

CPP 30 14:00 — 16:00 Poster B
P2: Organic Electronics and Photovoltaics

CPP 31 14:00 — 16:00 Poster B
P3: Hybrid Photovoltaics and Preovskites

CPP 32 14:00 — 16:00 Poster B
P4: Computational Physics of Soft Matter

CPP 33 14:00 — 16:00 Poster C
P5: Microswimmers, Active Liquids

CPP 34 14:00 — 16:00 Poster C
P6: Biomaterials and Biopolymers

CPP 35 14:00 — 16:00 Poster C
P7: Hydrogels and Elastomers

Dielectric Solids Division (DF)

Topical Talks

DF 7.1 09:30 — 10:00 EB 107
Polarisation charge as a reconfigurable dopant in wide-bandgap ferroelectrics
•*Tomas Sluka*

DF 7.4 10:40 — 11:10 EB 107
Influence of defects on domain wall mobility in ferroelectrics
•*Susan Trolier-McKinstry, Daniel Marincel, Stephen Jesse, Sergei Kalinin, Huiaruo Zhang, Ian Reaney*

DF 7.5 11:20 — 11:50 EB 107
The electronic structure of longitudinal domain walls: a DFT perspective
•*Gustav Bihlmayer, Kourosh Rahmanizadeh, Daniel Wortmann, Stefan Blügel*

DF 7.8 12:30 — 13:00 EB 107
Electronic reconstruction and transport at ferroelectric domain walls
•*Dennis Meier*

Sessions

DF 7 09:30 — 13:00 EB 107
Focused Session on Ferroic Domain Walls II (DF with MA)

DF 8 11:15 — 12:15 H 0111
High-k and Low-k Dielectrics (DS with DF)

DF 9 14:00 — 16:00 EB 107
Focused Session on Ferroic Domain Walls III (DF with MA)

Thin Films Division (DS)

Invited Talks

DS 9.1 09:30 — 10:00 H 2032
Electronic doping of crystalline silicon nanoparticles
•*Rui N. Pereira*

DS 9.3 10:15 — 10:45 H 2032
Impurity doping of Si nanocrystals studied by single-quantum-dot spectroscopy
•*Jan Valenta, Ilya Sychugov, Jan Linnros, Minoru Fujii*

DS 9.4 10:45 — 11:15 H 2032
Active Silicon Nanovolume Doping: Failure and Alternatives
•*Dirk König*

DS 9.5 11:30 — 12:00 H 2032
Doping issues in semiconductor field-effect transistors
•*Joachim Knoch*

DS 9.6 12:00 — 12:30 H 2032
Probing composition and conductivity in 3D-structures and confined volumes.
•*Wilfried Vandervorst*

DS 9.7 12:30 — 13:00 H 2032
Silicon Nanowire Devices and Applications
•*Thomas Mikolajick, Walter Weber*

Sessions

DS 9 09:30 — 13:00 H 2032
Focussed Session: Doped Si nanostructures (joint session with HL)

DS 10 09:30 — 11:00 H 0111
Thermoelectric materials

DS 11 09:30 — 13:00 H 3005
Transport: Topological Insulators 2 (joint session with DS, HL, MA, O)

DS 12 09:30 — 12:15 A 053
Transport: Graphene (joint session with DS, DY, HL, MA, O)

DS 13 10:00 — 12:30 C 243
Interfaces and Thin Films I (joint session with CPP)

DS 14 10:30 — 13:15 MA 043
Plasmonics and nanooptics: Structure, fabrication and characterisation
(joint session with O)

DS 15 11:15 — 12:15 H 0111
High-k and Low-k Dielectrics
(joint session with DF)

DS 16 12:15 — 13:00 H 0111
Atomic Layer Deposition

DS 17 14:00 — 16:00 H 0110
Transport: Topological Insulators 3
(joint session with DS, HL, MA, O)

DS 18 14:00 — 16:00 C 243
Interfaces and Thin Films II
(joint session with CPP)

Dynamics and Statistical Physics Division (DY)

Invited Talks

DY 14.1 09:30 — 10:00 BH-N 243
Basins of Attraction for Chimera States
•*Erik Andreas Martens, Mark Panaggio, Daniel Abrams*

DY 14.2 10:00 — 10:30 BH-N 243
Hysteretic transitions and chaotic chimera states in networks of Kuramoto oscillators with inertia
•*Simona Olmi*

DY 14.3 10:30 — 11:00 BH-N 243
Transient amplitude chimeras: the impact of time delay and noise
•*Anna Zakharova, Julien Siebert, Sarah Loos, Aleksandar Gjurchinovski, Eckehard Schöll*

Sessions

DY 14 09:30 — 12:30 BH-N 243
Focus Session: Chimera states: symmetry-breaking in dynamical networks
(joint session DY/BP)

DY 15 09:30 — 12:30 BH-N 334
Statistical Physics – general

DY 16 09:30 — 12:30 BH-N 128
Microswimmers – Part I
(joint session DY/BP/CPP)

DY 17 09:30 — 12:00 BH-N 333
Modeling and Data Analysis

DY 18 09:30 — 13:00 H 0104
Focus Session: Dynamics in Many-Body Systems: Equilibration and Localisation
(joint session TT/DY)

DY 19 09:30 — 12:15 A 053
Transport: Graphene
(joint session TT/CPP/DS/DY/HL/MA/O)

DY 20 10:15 — 13:15 MA 001
Focus Session: Complex Contagion Phenmomena (joint session SOE/DY/BP)

DY 21 14:00 — 16:00 H 3010
Correlated Electrons: Nonequilibrium Quantum Many-Body Systems 3
(joint session TT/DY)

DY 22 14:00 — 16:15 MA 001
Evolutionary Game Theory II
(joint session SOE/BP/DY)

DY 23 14:30 — 16:15 BH-N 243
Reaction-Diffusion Systems

DY 24 14:30 — 16:00 BH-N 334
Quantum Chaos (joint session DY/TT)

DY 25 15:00 — 16:15 BH-N 128
Nonlinear Stochastic Systems

Semiconductor Physics Division (HL)

Invited Talks

HL 22.1 09:30 — 10:00 ER 164
Ultrastrong coupling regime of excitons interacting with microcavity photons or Localised surface plasmons
•*Salvatore Savasta*

HL 31.1 10:30 — 11:00 EW 201
Bruno K. Meyer: Excitons, defects and impurities in nitrides and oxides
•*Axel Hoffmann*

Sessions

HL 22 09:30 — 10:00 ER 164
Invited Talk Salvatore Savasta

HL 23 09:30 — 11:30 ER 270
Spintronics: Excitons and local spins
(with MA/TT)

HL 24 09:30 — 13:00 EW 202
Thermoelectricity

HL 25 09:30 — 11:00 EW 203
Quantum dots: Microcavities and microlaser

HL 26 09:30 — 13:00 C 130
Organic electronics and photovoltaics: Transport of charges – from molecules to devices
(CPP with HL/TT)

HL 27 09:30 — 13:00 H 2032
Doped Si nanostructures (DS with HL/TT)

HL 28 09:30 — 13:00 H 3005
Transport: Topological insulators 2
(TT with HL/DS)

HL 29 09:30 — 12:15 A 053
Transport: Graphene
(TT with CPP/DS/DY/HL/O)

HL 30 10:15 — 11:45 ER 164
Photovoltaics: Nanostructured materials

HL 31 10:30 — 11:00 EW 201
Invited Talk in honor of Bruno K. Meyer: Axel Hoffman

HL 32 10:30 — 13:00 MA 041
Graphene: Growth & intercalation
(O with HL/TT)

HL 33 10:30 — 13:30 MA 004
Frontiers of Electronic Structure Theory: Nuclear Dynamics, Methods

HL 34 11:15 — 13:00 EW 201
Nitrides: Dots, rods, and structures

HL 35 11:15 — 12:45 EW 203
Semiconductor laser

HL 36 14:00 — 16:00 C 130
Organic electronics and photovoltaics: OPV I
(CPP with HL/TT)

HL 37 14:00 — 16:00 H 0110
Transport: Topological insulators 3
(TT with HL/DS)

HL 38 14:00 — 15:45 MA 004
Frontiers of electronic structure theory: Charge and spin dynamics

HL 39 14:00 — 20:00 Poster F
Posters II (Topological insulators; Graphene; Spintronics and spin physics; Quantum information science)

Magnetism Division (MA)

Invited Talks

MA 18.1 09:30 — 10:15 EB 301
Experimental Studies of Quantum Phase Transitions
•*Andrew Mackenzie*

MA 18.2 10:15 — 10:45 EB 301
Metallic Quantum Ferromagnets
•*Manuel Brando*

MA 18.4 11:30 — 12:15 EB 301
Theoretical Concepts of Quantum Phase Transitions
•*Matthias Vojta*

MA 18.5 12:15 — 12:45 EB 301
Quantum criticality and beyond
•*Andrew Schofield*

MA 18.7 14:00 — 14:30 EB 301
Quantum Criticality in Quantum Magnets
•*Christian Rüegg*

MA 18.9 14:45 — 15:15 EB 301
Beyond quantum phase transitions
•*Wilhelm Zwerger*

Sessions

MA 13 09:30 — 13:00 EB 107
Focused Session on Ferroic Domain Walls II (DF with MA)

MA 14 09:30 — 12:30 H 0112
Electronic Structure of Magnetism, Computational Magnetism

MA 15 09:30 — 12:15 H 1012
Magnetic measurement methods

MA 16 09:30 — 12:30 EB 202
Bio- and Molecular magnetism

MA 17 09:30 — 11:30 ER 270
Spintronics: Excitons and local spins (HL with MA/TT)

MA 18 09:30 — 16:30 EB 301
PhD symposium of the Division of Magnetism and the jDPG 2015: Quantum Phase Transitions: Emergent phenomena beyond elementary excitations

MA 19 09:30 — 13:00 Poster A
POSTER Ia

MA 20 09:30 — 13:00 Poster A
POSTER Ib

MA 21 14:00 — 16:00 EB 107
Focused Session on Ferroic Domain Walls III (DF with MA)

Metal and Material Physics Division (MM)

Invited Talk, Topical Talks

MM 18.1 09:30 — 10:00 TC 006
Unraveling the Mechanisms of Plasticity in Nanostructured Materials using Advanced Data Analysis and Simulation Methods
•*Alexander Stukowski*

MM 21.1 10:15 — 10:45 TC 006
Hydrogenography and Metalhydride Switchable Mirrors
•*Ronald Griessen*

MM 25.1 11:45 — 12:15 TC 006
An Industrial Perspective on Materials Design for Reduced Sensitivity to Hydrogen-Embrittlement
•*Richard G. Thiessen, Oliver Rott*

Sessions

MM 18 09:30 — 10:00 TC 006
Invited talk Stukowski

MM 19 10:15 — 11:45 H 0106
Methods in Computational Materials Modelling I: Materials Design

MM 20 10:15 — 11:30 H 0107
Liquid and Amorphous Metals III: Deformation of Metallic Glasses

MM 21 10:15 — 11:45 TC 006
Hydrogen in metals IV: Special topics

MM 22 10:15 — 11:45 TC 010
Functional Materials IV: Thermoelectric and Multiferroic Materials

MM 23 11:45 — 12:45 H 0106
Methods in Computational Materials Modelling: Battery Mateirals

MM 24 11:45 — 12:45 H 0107
Transport II:
Thermal and Electrical Conductivity

MM 25 11:45 — 13:15 TC 006
Hydrogen in Metals V: H in Steels

MM 26 11:45 — 13:00 TC 010
Functional Materials V: Functional Materials

MM 27 14:00 — 15:45 A 053
Transport: Nanomechanics
(joint session with MM)

MM 28 18:30 — 20:30 Poster E
Poster Session II

Surface Science Division (O)

Invited Talks, Topical Talks

O 17.1 09:30 — 10:15 HE 101
Angle-Resolved Photoemission Spectroscopy (ARPES) and its applications to novel 2D materials
•*Eli Rotenberg*

O 18.1 10:30 — 11:00 HE 101
Water adsorption on Ru(0001): A molecular perspective
•*Sabine Maier*

O 18.4 11:30 — 12:00 HE 101
Using resonant inelastic soft x-ray scattering maps to study liquids, gases, and their interfaces
•*Lothar Weinhardt*

O 18.5 12:00 — 12:30 HE 101
Effect of flow on water organisation at solid interfaces
•*Mischa Bonn*

O 19.1 10:30 — 11:00 MA 004
Electronic structure in the vicinity of strong non-adiabatic couplings
•*Eberhard K.U. Gross*

O 22.1 10:30 — 11:00 MA 042
Electron dynamics at molecule-semiconductor interfaces
•*Katrin R. Siefermann*

O 25.1 14:00 — 14:30 HE 101
First-Principles Microkinetic Modeling at Solid-Liquid Interfaces: First Steps
•*Karsten Reuter*

O 25.2 14:30 — 15:00 HE 101
Structure of metal electrode-electrolyte interfaces determined from first principles
•*Axel Groß*

O 25.3 15:00 — 15:30 HE 101
Synchrotron x-ray determination of ion distributions at liquid interfaces
•*Jean Daillant*

O 25.4 15:30 — 16:00 HE 101
Modelling of electrical double layers at metal oxide electrodes
•*Michiel Sprik, Jun Cheng*

O 26.1 14:00 — 14:30 MA 004
First-principles theories of electron-plasmon and electron-spin fluctuation interactions in nanomaterials
•*Johannes Lischner*

Sessions

O 17 09:30 — 10:15 HE 101
Overview Talk (Eli Rotenberg)

O 18 10:30 — 12:30 HE 101
Focus Session: Structure, Chemistry, and Ion Solvation at Solid-Liquid Interfaces I

O 19 10:30 — 13:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale I

O 20 10:30 — 13:15 MA 005
Inorganic/Organic Interfaces: Growth III

O 21 10:30 — 13:00 MA 041
Graphene: Growth & Intercalation

O 22 10:30 — 13:00 MA 042
Ultrafast Surface Dynamics

O 23 10:30 — 13:15 MA 043
Plasmonics and Nanooptics: Structure, Fabrication and Characterisation

O 24 10:30 — 13:15 MA 144
Catalysis: Structural Effects

O 25 14:00 — 16:00 HE 101
Focus Session: Structure, Chemistry, and Ion Solvation at Solid-Liquid Interfaces II

O 26 14:00 — 15:45 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale II

O 27 14:00 — 16:15 MA 005
Nanostructures: Low Dimensions

O 28 14:00 — 16:00 MA 041
Moire and Graphene Stacking

O 29 14:00 — 16:00 MA 042
Near-Field Microscopy

O 30 14:00 — 16:00 MA 043
Inorganic/Organic Interfaces: Towards Application

O 31 14:00 — 15:45 MA 144
Tribology

O 32 18:15 — 21:00 Poster A
Surface Magnetism and Spin Phenomena

O 33 18:15 — 21:00 Poster A
Graphene

O 34 18:15 — 21:00 Poster A
Metal Substrates: Structure, Epitaxy and Growth

O 35 18:15 — 21:00 Poster A
Nanostructures at Surfaces

O 36 18:15 — 21:00 Poster A
Plasmonics and Nanooptics

O 37 18:15 — 21:00 Poster A
Scanning Probe Techniques

O 38 18:15 — 21:00 Poster A
Semiconductor Substrates

O 39 18:15 — 21:00 Poster A
Heterogeneous Catalysis

O 40 18:15 — 21:00 Poster A
Solid-Liquid Interfaces

O 41 18:15 — 21:00 Poster B
Inorganic/Organic Interfaces

Physics of Socio-economic Systems Division (SOE)

Invited Talk, Topical Talks

SOE 9.1 09:30 — 10:15 MA 001
The Universality of Cities as Complex Network Systems
•*Luis Bettencourt*

SOE 10.1 10:15 — 10:45 MA 001
Micro dynamics of social interactions
•*Sune Lehmann*

SOE 10.6 11:45 — 12:15 MA 001
Containing epidemics using limited resources and information
•*Olivia Woolley-Meza*

Sessions

SOE 9 09:30 — 10:15 MA 001
Urban Systems – Dynamics and Complexity of Cities (Invited Talk Luis Bettencourt)

SOE 10 10:15 — 13:15 MA 001
Focus Session: Complex Contagion Phenmomena (joint session SOE/DY/BP)

SOE 11 14:00 — 16:15 MA 001
Evolutionary Game Theory II
(joint session BP/SOE/DY)

Low Temperature Physics Division (TT)

Invited Talks, Topical Talks

TT 29.1 09:30 — 10:00 H 0104
Probing Non-Equilibrium Dynamics with Ultracold Atoms: from Quantum Magnetism to Many-Body Localisation
•*Immanuel Bloch*

TT 29.2 10:00 — 10:30 H 0104
Many-Body Localisation
•*Dmitry Abanin*

TT 29.3 10:30 — 11:00 H 0104
Long-Time Behaviour of Periodically Driven Many-Body Quantum Systems
•*Achilleas Lazarides, Arnab Das, Roderich Moessner*

TT 29.4 11:15 — 11:45 H 0104
Many Body Localisation and Eigenstate Order
•*Shivaji Sondhi*

TT 29.5 11:45 — 12:15 H 0104
Anderson Transitions and Electron-Electron Interaction
•*Alexander Mirlin*

TT 31.1 09:30 — 10:00 H 2053
Electronic Correlations in Hole- and Electron-Doped Fe-Based Superconductors and Evidence for the C_4-Magnetic Phase in $Ba_{1-x}K_xFe_2As_2$
•*Frédéric Hardy, Anna Böhmer, Thomas Wolf, Peter Schweiss, Rolf Heid, Robert Eder, Robert A. Fisher, Christoph Meingast*

TT 32.7 11:15 — 11:45 H 3005
Interacting Topological Insulators
•*Stephan Rachel*

TT 43.1 14:00 — 14:30 H 2053
Magnetism and Superconductivity in Eu-Based Iron Pnictides
•*Sina Zapf*

Sessions

TT 29	09:30 — 13:00 H 0104 Focus Session: Dynamics in Many-Body Systems: Equilibration and Localisation (joint session TT/DY)
TT 30	09:30 — 13:00 H 0110 Correlated Electrons: Spin Systems and Itinerant Magnets – Frustrated Magnets 3 (jointly with MA)
TT 31	09:30 — 12:45 H 2053 Superconductivity: Fe-based Superconductors – 122 and 111
TT 32	09:30 — 13:00 H 3005 Transport: Topological Insulators 2 (jointly with DS, HL, MA, O)
TT 33	09:30 — 12:15 H 3010 Low-Dimensional Systems: Other Materials
TT 34	09:30 — 12:15 A 053 Transport: Graphene (jointly with CPP, DS, DY, HL, MA, O)
TT 35	09:30 — 16:30 EB 301 PhD Symposium: Quantum Phase Transitions: Emergent Phenomena beyond Elementary Excitations (organised by MA, jDPG)
TT 36	09:30 — 13:00 C 130 Organic Electronics and Photovoltaics: Transport of Charges – from Molecules to Devices (jointly with CPP, HL)
TT 37	09:30 — 11:00 H 0111 Thermoelectric Materials (organised by DS)
TT 38	10:30 — 13:30 MA 004 Frontiers of Electronic Structure Theory: Nuclear Dynamics, Methods (jointly with O, HL)
TT 39	10:30 — 13:00 MA 041 Graphene: Growth & Intercalation (jointly with O, HL)

TT 40 09:30 — 12:30 H 0112
Electronic Structure of Magnetism, Micromagnetism, Computational Magnetism
(organised by MA)

TT 41 09:30 — 11:30 ER 270
Spintronics: Excitons and Local Spins
(jointly with HL, MA)

TT 42 14:00 — 16:00 H 0110
Transport: Topological Insulators 3
(jointly with DS, HL, MA, O)

TT 43 14:00 — 15:45 H 2053
Superconductivity:
Fe-based Superconductors – 122

TT 44 14:00 — 15:45 H 3005
Correlated Electrons: Quantum-Critical Phenomena – Experiments

TT 45 14:00 — 16:00 H 3010
Correlated Electrons: Nonequilibrium Quantum Many-Body Systems 3 (jointly with DY)

TT 46 14:00 — 15:45 A 053
Transport: Nanomechanics (jointly with MM)

TT 47 14:00 — 16:00 C 130
Organic Electronics and Photovoltaics: OPV I
(jointly with CPP, HL, O)

TT 48 14:30 — 16:00 BH-N 334
Quantum Chaos (jointly with DY)

TT 49 14:00 — 15:45 MA 004
Frontiers of Electronic Structure Theory:
Charge and Spin Dynamics (jointly with O, HL)

TT 50 18:15 — 21:00 Poster A
Graphene (organised by O)

History of Physics Division (GP)

Invited Talks

GP 4.1 09:30 — 10:15 HL 001
Albert Einstein – relativ politisch
•*Dieter Hoffmann*

GP 6.1 14:00 — 14:45 HL 001
Arguments that Count: Physics, Computing, and Missile Defense
•*Rebecca Slayton*

Sessions

GP 4 09:30 — 12:30 HL 001
Friedensengagement

GP 5 12:30 — 13:30 HL 001
Annual General Meeting of the History of Physics Division

GP 6 14:00 — 15:45 HL 001
Rüstungsforschung I

Gravitation and Relativity Division (GR)

Invited Talks

GR 4.1 09:30 — 10:10 H 2013
Characteristic Cauchy problems in general relativity
•*Piotr Chrusciel*

GR 4.2 10:10 — 10:50 H 2013
Mass and center of mass of asymptotically flat spaces
•*Gerhard Huisken*

GR 4.3 10:50 — 11:30 H 2013
Loop quantum gravity – an unusual QFT
•*Hanno Sahlmann*

GR 5.1 11:50 — 12:30 H 2013
Quantum Gravity – General Introduction and Recent Developments
•*Claus Kiefer*

Sessions

GR 4 09:30 — 11:30 H 2013
Invited Talks 2 (with MP)

GR 5 11:50 — 12:30 H 2013
Invited Talks 3

GR 6 14:00 — 15:20 H 2013
Quantum Gravity and Quantum Cosmology

GR 7 15:20 — 16:00 H 2013
Cosmology

GR 8 14:00 — 16:00 H 2033
Poster Session

Microprobes Division (MI)

Invited Talk

MI 5.1 10:30 — 11:15 EMH 225
Dynamic Light Scattering on Polymer Gels
•*Bernhard Ferse, Franziska Krahl, Doreen Beyer, Karl-Friedrich Arndt, Andreas Richter*

Sessions

MI 4 09:30 — 10:00 C 243
On-Surface Polymerisation
(contributed session to the symposium SYOP, joint session with CPP)

MI 5 10:30 — 11:15 EMH 225
International Year of Light

MI 6 11:30 — 12:00 EMH 225
Scanning Probe Microscopy

Theoretical and Mathematical Physics Division (MP)

Invited Talk

MP 3.1 12:00 — 12:40 HFT-FT 101
Quantum information measures for quantum fields
•*Tobias Osborne*

Sessions

MP 1 09:30 — 10:50 HFT-FT 101
Statistische Mechanik

MP 2 10:55 — 11:55 HFT-FT 101
Quanteninformation

MP 3 12:00 — 12:40 HFT-FT 101
HV Osborne

MP 4 09:30 — 11:30 H 2013
HV Gravitation (gemeinsam mit GR)

MP 5 15:00 — 15:30 HFT-FT 101
Alternative Theorien

MP 17 09:30 — 18:00 HFT-FT 101
Poster (permanent Di-Do)

Working Group on Energy (AKE)

Invited Talks

AKE 7.1 09:30 — 10:00 A 151
Optionen und Trends der Biomassenutzung: Perspektiven für die Bioenergie 2050
•*Jens Ponitka, Daniela Thrän*

AKE 7.2 10:00 — 10:30 A 151
Rational design of cyanobacteria for hydrogen production
•*Sascha Rexroth*

AKE 8.1 10:45 — 11:15 A 151
Energiespeicher für die Elektromobilität – Perspektiven und Limitierungen
•*Margret Wohlfahrt-Mehrens*

AKE 9.1 14:00 — 14:30 A 151
Power to Gas – an economic approach?
•*Manfred Waidhas*

Sessions

AKE 7 09:30 — 10:30 A 151
Bioenergy

AKE 8 10:45 — 12:30 A 151
Energy Storage I, Mobility, Materials

AKE 9 14:00 — 15:15 A 151
Energy Storage II

Working Group on Physics and Disarmament (AGA)

Sessions

AGA 4 09:30 — 12:30 HL 001
Engagement for Peace

AGA 5 14:00 — 15:45 HL 001
Research for the Military I

Working Group „Young DPG“ (AGjDPG)

Session

AGjDPG 3 09:30 — 16:30 EB 301
PhD symposium of the Magnetism Division and the AGjDPG 2015: Quantum Phase Transitions: Emergent phenomena beyond elementary excitations

Working Group on Philosophy of Physics (AGPhil)

Sessions

AGPhil 1 14:00 — 15:30 A 060
Foundations of Quantum Mechanics

AGPhil 2 16:00 — 18:00 A 060
Philosophy of Science

AGPhil 3 18:00 — 18:10 A 060
Poster Session

AGPhil 15 09:30 — 10:30 A 060
Alternative Approaches III

Job Market

12:00 — 13:00 PC 203
Oxford Instruments Omicron NanoScience

13:15 — 14:15 PC 203
Basycon Unternehmensberatung GmbH

14:30 — 15:30 PC 203
McKinsey & Company, Inc.

„Role models“-Exhibition

09:00 — 19:00 Main Building

Exhibition of Scientific Instruments and Literature

09:00 — 17:00 Lichthof, Foyer EG, EG rechts, 1. OG, Tents

Wednesday, March 18, 2015

Plenary Talks, Prize Talk, Special Talk

PV XIV 08:30 — 09:15 H 0105
Beyond electronics: abandoning perfection for quantum technologies
•*David D. Awschalom*

PV XV 13:15 — 13:45 H 0104
Apples vs. Oranges: Comparison of Student Performance in a Massive Open Online Course (MOOC) vs. a Brick-and-Mortar Course
•*Michael Dubson, Ed Johnsen, David Lieberman, Jack Olsen, Noah Finkelstein*

PV XVI 13:15 — 13:45 H 0105
Light control of functional materials
•*Andrea Cavalleri*
(Laureate of the Max-Born-Prize)

PV XVII 14:00 — 14:45 H 0104
Computationally Aided Materials Discovery and Design
•*Mark Asta*

PV XVIII 14:00 — 14:45 H 0105
Cosmological Inflation – A Confrontation with Data
•*Dominik Schwarz*

PV XIX 18:00 — 19:00 H 0105
Max-von-Laue-Lecture: Unmaking the Bomb: A Fissile Material Approach to Nuclear Disarmament and Nonproliferation
•*Frank N. von Hippel*

Symposium Higgs Modes in Condensed Matter and Quantum Gases (SYHM)

Invited Talks

SYHM 1.1 15:00 — 15:30 H 0105
Amplitude or Higgs Modes in Condensed Matter
•*Chandra Varma*

SYHM 1.2 15:30 — 16:00 H 0105
Higgs Particles for Systems with U(1) Symmetry in Two Dimensions
•*Lode Pollet*

SYHM 1.3 16:00 — 16:30 H 0105
Massive Photons and the Anderson-Higgs Mechanism in Superconductors
•*Dirk van der Marel*

SYHM 1.4 16:45 — 17:15 H 0105
Amplitude Higgs Mode in 2H-$NbSe_2$ Superconductor
•*Marie-Aude Méasson, Romain Grasset, Yann Gallais, Max Cazayous, Alain Sacuto, Pierre Rodière, Laurent Cario*

SYHM 1.5 17:15 — 17:45 H 0105
The Higgs Mode in Disordered Superconductors Close to a Quantum Phase Transition
•*Aviad Frydman, Daniel Sherman, Uwe S. Pracht, Boris Gorshunov, Martin Dressel*

Session

SYHM 1 15:00 — 17:45 H 0105
Higgs Modes in Condensed Matter and Quantum Gases

Symposium Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-Scale (SYME)

Sessions

SYME 4 10:30 — 13:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale III

SYME 5 15:00 — 18:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale IV

Symposium Physics of Sustainability and Human-Nature Interactions (SYPS)

Invited Talks

SYPS 1.1 09:30 — 10:00 H 0105
Anticipating and avoiding tipping points
•*Timothy M. Lenton*

SYPS 1.2 10:00 — 10:30 H 0105
Climate investment under uncertainty: the two degree target and the desire for dynamic consistency
•*Hermann Held, Delf Neubersch*

SYPS 1.3 10:30 — 11:00 H 0105
What are the resources required to fulfil human needs?
•*Julia Steinberger*

SYPS 1.4 11:15 — 11:45 H 0105
Design of Sustainable Supply Chains for Sustainable Cities
•*Anna Nagurney*

SYPS 1.5 11:45 — 12:15 H 0105
Ecological econophysics for degrowth
•*Salvador Pueyo*

Session

SYPS 1 09:30 — 12:15 H 0105
Physics of Sustainability and Human-Nature Interactions

Biological Physics Division (BP)

Invited Talks

BP 33.1 09:30 — 10:00 H 1058
Feeling for cell function: Mechanical phenotyping at 100 cells/sec
•*Jochen Guck*

BP 34.7 11:30 — 12:00 H 1028
Efficiently extracting thermodynamics and kinetics from molecular simulation data at multiple thermodynamic states
•*Frank Noe*

BP 35.1 15:00 — 15:30 H 1028
Caged Hyperpolarized Xenon in Phospholipid Membranes for NMR Sensing Applications
•*Leif Schröder*

BP 37.1 15:00 — 15:30 EW 202
The cost of moving optimally
•*Dinant Kistemaker*

Sessions

BP 33 09:30 — 13:15 H 1058
Cell adhesion, mechanics and migration I (joint BP/CPP)

BP 34 09:30 — 13:15 H 1028
Statistical Physics of Biological Systems II (joint BP/DY/CPP)

BP 35 15:00 — 18:30 H 1028
Membranes and vesicles II (joint BP/CPP)

BP 36 15:00 — 18:30 H 1058
Cell adhesion, mechanics and migration II

BP 37 15:00 — 16:30 EW 202
Modelling of non-linear dynamics in biological movement (focus session)

BP 38 15:00 — 18:00 C 130
Electrolytes at Interfaces Stern Layer (focus session, joint CPP/BP/O)

BP 39 16:45 — 18:30 MA 001
Physics of Sustainability and Human-Nature Interactions I (joint SOE/DY/jDPG/BP/AKE)

BP 40 19:00 — 20:00 H 1058
Annual General Meeting of the Biological Physics Division

Chemical and Polymer Physics Division (CPP)

Invited Talks

CPP 38.1 09:30 — 10:00 C 264
Challenges for the development of coarse-grained simulation models for complex soft matter systems
•*Christine Peter*

CPP 38.8 11:45 — 12:15 C 264
Answering old questions with new simulation methods: what is the behaviour of fluctuation spectra and Frank constants in polymer nematics?
•*Kostas Daoulas, Patrick Gemünden*

CPP 52.1 15:00 — 15:30 C 130
Ultraslow dynamics of hydrated metal ions at the water-solid interface observed by atomic force microscopy
•*Kislon Voitchovsky*

CPP 52.6 16:45 — 17:15 C 130
Water flow along a solid interface affects the Stern layer
•*Mischa Bonn*

CPP 55.1 15:00 — 15:30 C 264
A new perspective of materials processing
•*Kyung Hyun Ahn*

CPP 58.1 15:45 — 16:15 PC 203
The Tricontinuous 3ths(5) Phase:
A New Morphology in Copolymer Melts
•*Gerd Schroeder-Turk, Michael Fischer, Liliana de Campo, Jacob Kirkensgaard, Stephen Hyde*

Sessions

CPP 36 09:30 — 13:00 C 130
Organic Electronics and Photovoltaics: OPV II
(joint session CPP, HL, TT)

CPP 37 09:30 — 13:00 C 243
Interfaces and Thin Films III
(joint session CPP, DS)

CPP 38 09:30 — 13:00 C 264
Computational Physics of Soft Matter I

CPP 39 09:30 — 13:15 H 1058
Cell adhesion, mechanics and migration I
(Joint session BP, CPP)

CPP 40 09:30 — 11:30 PC 203
Charged Soft Matter II

CPP 41 09:30 — 11:00 EB 407
Optical and Nonlinear Optical Properties I
(joint session DF, CPP)

CPP 42 11:30 — 12:45 H 3005
Transport: Fluctuations and Noise
(joint session TT, CPP, DY)

CPP 43 10:00 — 13:00 Poster A
P8: Nanoparticles and Compsite Materials

CPP 44 10:00 — 13:00 Poster A
P9: Crystallisation, Nucleation and Self Assembly

CPP 45 10:00 — 13:00 Poster A
P10: Colloids and Complex Liquids

CPP 46 10:00 — 13:00 Poster A
P11: Wetting, Micro and Nano Fluidics

CPP 47 10:00 — 13:00 Poster A
P12: Glasses and Glass Transition

CPP 48 10:00 — 13:00 Poster A
P13: Charged Soft Matter

CPP 49 10:00 — 13:00 Poster A
P14: Polymer Dynamics

CPP 50 10:00 — 13:00 Poster A
P15: Polymers and Fields

CPP 51 10:00 — 13:00 Poster A
P16: New Instruments and Methods

CPP 52 15:00 — 18:00 C 130
Focus: Electrolytes at Interfaces – Stern Layer
(joint session with CPP, BP)

CPP 53 15:00 — 18:15 HE 101
Inorganic/organic interfaces: Electronic properties II (joint session O, CPP)

CPP 54 15:00 — 18:15 C 243
Wetting, Micro and Nanofluidics
(joint session CPP, DY)

CPP 55 15:00 — 18:30 C 264
Flow-Induced Structures in Complex Fluids
(with DRG, Deutsche Rheologische Gesellschaft, and DY)

CPP 56 15:00 — 18:30 H 1028
Membranes and vesicles II
(joint session BP, CPP)

CPP 57 15:00 — 16:45 BH-N 333
Complex Fluids and Soft Matter – Part I
(joint session DY, CPP, BP)

CPP 58 15:45 — 18:30 PC 203
Computational Physics of Soft Matter II

CPP 59 18:30 — 19:30 C 130
Annual General Meeting of the Chemical and Polymer Physics Division

Dielectric Solids Division (DF)

Invited Talks

DF 12.1 09:30 — 10:00 EB 407
Holographic microstructuring of liquid-crystalline elastomers
•*Irena Drevensek-Olenik, Martin Čopič, Martin Fally, Valentina Domenici, Antoni Sánchez-Ferrer*

DF 13.1 11:20 — 11:50 EB 407
Twisting the anionic-electronic transport kinetics to trigger memristance for resistive switching non-volatile memories: new materials, structering and methods
•*Jennifer Rupp, Felix Messerschmitt, Sebastian Schweiger, Rafael Schmitt, Markus Kubicek*

DF 13.4 12:30 — 13:00 EB 407
Investigation of dielectrics under electron irradiation
•*Hans-Joachim Fitting*

DF 14.1 15:00 — 15:30 EB 107
Low energy consumption spintronics using multiferroic heterostructures
•*Morgan Trassin*

Sessions

DF 10 09:30 — 13:00 EB 107
Multiferroics I (DF with DS/KR/MA/TT)

DF 11 09:30 — 13:00 EB 133C
Small Polarons in $LiNbO_3$

DF 12 09:30 — 11:00 EB 407
Optical and Nonlinear Optical Properties I (DF with CPP)

DF 13 11:20 — 13:00 EB 407
Ceramics and Applications (DF with KR)

DF 14 15:00 — 18:50 EB 107
Multiferroics II (DF with DS/KR/MA/TT)

DF 15 15:00 — 17:40 EB 407
Optical and Nonlinear Optical Properties II (DF with KR)

19:00 — 20:00 EB 107
Annual General Meeting of the Dielectric Solids and the Crystallography Divisions

Thin Films Division (DS)

Invited Talks

DS 19.1 09:30 — 10:00 H 2032
Ferromagnetic shape memory alloys: From ion-beam assisted synthesis to plasma-aided functionalisation for biomedical applications
Ariyan Arabi-Hashemi, Uta Allenstein, Florian Szillat, Astrid Weidt, Mareike Zink, •*Stefan G. Mayr*

DS 19.2 10:00 — 10:30 H 2032
Writing magnetic patterns using ion-beams
•*Rantej Bali*

DS 20.1 09:30 — 10:00 H 0111
Differential Optical Spectroscopy for Surface Science
•*Peter Zeppenfeld*

DS 20.2 10:00 — 10:30 H 0111
In situ Raman monitoring of Potassium intercalation in Manganese Phthalocyanine
•*Ovidiu D. Gordan, Michael Ludemann, Franziska Lüttich, Dmytro Solonenko, Philipp Schäfer, Dietrich R. T. Zahn*

DS 20.3 10:30 — 11:00 H 0111
Infrared surface and interface studies – vibrational analysis and beyond
•*Annemarie Pucci*

DS 20.4 11:00 — 11:30 H 0111
Correlation of IR spectra with thin film structure at solid-water interfaces
•*Karsten Hinrichs*

DS 20.5 11:30 — 12:00 H 0111
In-situ characterisation of electronic materials by optical second-harmonic generation
•*Michael Downer*

Sessions

DS 19 09:30 — 12:15 H 2032
Ion and electron beam induced processes

DS 20 09:30 — 13:00 H 0111
Focussed Session:
In-situ optical spectroscopy

DS 21 09:30 — 13:00 EB 107
Multiferroics I (joint session with DF)

DS 22 09:30 — 13:00 C 243
Interfaces and Thin Films III
(joint session with CPP)

DS 23 09:30 — 11:30 ER 270
Topological insulators: Theory
(HL with DS/MA/O/TT)

DS 24 10:30 — 12:45 MA 042
Metal substrates: Structure, epitaxy and growth (joint session with O)

DS 25 13:15 — 13:45 HE 101
GAEDE-PRIZE 2015

DS 26 15:00 — 19:00 H 2032
Layer Properties: Electrical, Optical, and Mechanical Properties

DS 27 15:00 — 16:15 H 0111
Micro- and Nanopatterning

DS 28 15:00 — 18:50 EB 107
Multiferroics II (joint session with DF)

DS 29 15:00 — 18:15 MA 042
Oxide and insulator surface: Structure, epitaxy and growth (joint session with O)

DS 30 15:00 — 16:30 ER 270
Topological insulators: Structure and electronic structure (HL with DS/MA/O/TT)

DS 31 11:45 — 13:00 ER 270
Topological insulators: Transport
(HL with DS/MA/O/TT)

DS 32 16:30 — 18:45 H 0111
Spins in organics

DS 33 19:00 — 20:00 H 0111
Annual General Meeting of the Thin Films Division

Dynamics and Statistical Physics Division (DY)

Invited Talks

DY 26.1 09:30 — 10:00 BH-N 243
Elusiveness of experimental evidence for directed percolation critical behaviour
•*Hugues Chaté*

DY 26.2 10:00 — 10:30 BH-N 243
Spatio-temporal dynamics in pipe flow and boundary layers
•*Bruno Eckhardt*

DY 27.1 09:30 — 10:00 BH-N 334
On the use and abuse of thermodynamic entropy
•*Peter Hänggi, Joern Dunkel, Stefan Hilbert*

DY 32.1 15:00 — 15:30 BH-N 243
Turbulence and Instantons
Tobias Grafke, •Rainer Grauer, Tobias Schäfer, Stephan Schindel, Eric Vanden-Eijnden

DY 32.6 16:45 — 17:15 BH-N 243
Particle motion and irreversibility of turbulent flows
•*Alain Pumir, Haitao Xu, Jennifer Jucha, Eberhard Bodenschatz*

Sessions

DY 26 09:30 — 12:30 BH-N 243
Focus Session:
Percolation and turbulent transition

DY 27 09:30 — 12:15 BH-N 334
Statistical Physics far from Thermal Equilibrium – Part I

DY 28 09:30 — 12:00 BH-N 128
Nonlinear Dynamics, Synchronisation and Chaos – Part I

DY 29 09:30 — 13:15 H 1028
Statistical Physics of Biological Systems – Part II (joint session BP/DY/CPP)

DY 30 09:30 — 12:15 H 0105
SYPS: Physics of Sustainability and Human-Nature Interactions
(joint symposium SOE/AKE/BP/DY jDPG)

DY 31 11:30 — 12:45 H 3005
Transport: Fluctuations and Noise
(joint session TT/CPP/DY)

DY 32 15:00 — 18:45 BH-N 243
Focus Session: Statistics of fully developed turbulence

DY 33 15:00 — 18:15 BH-N 334
Critical Phenomena and Phase Transitions

DY 34 15:00 — 16:15 BH-N 128
Nonlinear Dynamics, Synchronisation and Chaos – Part II

DY 35 15:00 — 16:45 BH-N 333
Complex Fluids and Soft Matter – Part I
(joint session DY/ CPP / BP)

DY 36 15:00 — 17:45 H 0105
SYHM Higgs Modes in Condensed Matter and Quantum Gases

DY 37 15:00 — 16:30 A 151
Fluctuating Electricity Supply: Modelling of Generation, Backup and Storage
(joint session AKE/DY/SOE)

DY 38 15:00 — 18:15 C 243
Wetting, Micro and Nanofluidics
(joint session CPP/DY)

DY 39 15:00 — 18:30 C 264
Flow-Induced Structures in Complex Fluids
(joint session CPP/DRG, Deutsche Rheologische Gesellschaft/DY)

DY 40 16:45 — 18:30 MA 001
Physics of Sustainability and Human-Nature Interactions – Part I
(joint session SOE/DY/jDPG/BP/AKE)

Semiconductor Physics Division (HL)

Invited Talks

HL 40.1 09:30 — 10:00 ER 164
Boon and bane of polarisation induced effects in group III-nitride based heterostructures
•*Oliver Ambacher*

HL 40.5 10:45 — 11:15 ER 164
Overview of theoretical aspects of semi-polar and non-polar nitride surfaces
•*John Northrup*

HL 48.1 11:00 — 11:30 EW 201
Transformation Optics: From Fundamentals to Applications for Energy Harvesting
•*Martin Wegener, Martin Schumann*

HL 48.2 11:30 — 12:00 EW 201
Nanostructures and materials for intermediate band solar cells
•*Antonio Martí*

HL 51.3 15:30 — 16:00 ER 164
Impact of reduced polarisation fields on the optical properties of semipolar nitride quantum wells
•*Mitsuru Funato, Yoichi Kawakami*

HL 54.1 15:00 — 15:30 EW 201
Nanophotonic light harvesting concepts from the visible to the mid-infrared
•*Stefan A Maier*

HL 54.2 15:30 — 16:00 EW 201
Material Design of Luminescent Glasses and Glass Ceramics for White-LED Applications
•*Stefan Schweizer, Franziska Steudel, Sebastian Loos, Bernd Ahrens, Peter Nolte, Florian Wagner*

Sessions

HL 40 09:30 — 11:15 ER 164
Focus Session: Role of polarisation fields in nitride devices I

HL 41 09:30 — 11:30 ER 270
Topological insulators: Theory (with DS/MA/O/TT)

HL 42 09:30 — 12:00 EW 015
Devices

HL 43 09:30 — 10:45 EW 202
Ultra-fast phenomena

HL 44 09:30 — 13:00 EW 203
Quantum dots: Preparation and characterisation

HL 45 09:30 — 13:00 C 130
Organic electronics and photovoltaics: OPV II (CPP with HL/TT)

HL 46 10:30 — 13:00 MA 041
Graphene: Dynamics (O with HL/TT)

HL 47 10:30 — 13:30 MA 004
Frontiers of electronic structure theory: Organics and materials

HL 48 11:00 — 13:00 EW 201
Focus Session (with O): Nanophotonic concepts and materials for energy harvesting – Plasmonics, transformation optics, upconversion, and beyond I

HL 49 11:00 — 13:00 EW 202
Quantum information systems: mostly concepts (with TT)

HL 50 11:45 — 13:00 ER 270
Topological insulators: Transport (with MA/O/TT)

HL 51 15:00 — 16:45 ER 164
Focus Session: Role of polarisation fields in nitride devices II

HL 52 15:00 — 16:30 ER 270
Topological insulators: Structure and electronic structure (with DS/MA/O/TT)

HL 53 15:00 — 16:00 EW 015
Photonic crystals

HL 54 15:00 — 16:30 EW 201
Focus Session: Nanophotonic concepts and materials for energy harvesting – Plasmonics, transformation optics, upconversion, and beyond II

HL 55 15:00 — 16:45 EW 203
Quantum dots: Interaction with environment

HL 56 15:00 — 18:30 MA 004
Frontiers of electronic structure theory: Optical excitations

HL 57 16:15 — 18:00 EW 015
Optical properties of bulk semiconductors

HL 58 16:30 — 18:45 EW 202
OFETs, OLEDs, and organic optoelectronics

HL 59 16:45 — 18:45 ER 270
Graphene: Applications, luminescence and spin relaxation (HL with O/TT)

HL 60 17:15 — 18:45 EW 203
Quantum dots: Transport

HL 61 15:00 — 20:00 Poster F
Posters III (Organic-inorganic perovskite semiconductors; Organic photovoltaics and electronics; Photovoltaics; Energy science; New materials and concepts)

Crystallography Division (KR)

Sessions

KR 4 09:30 — 13:00 EB 107
Multiferroics I (DF jointly with DS, KR, MA, TT)

KR 5 15:00 — 18:50 EB 107
Multiferroics II (DF jointly with DS, KR, MA,TT)

KR 6 11:20 — 13:00 EB 407
Ceramics and Applications (DF jointly with KR)

KR 7 15:00 — 17:40 EB 407
Optical and Nonlinear Optical Properties II (DF jointly with KR)

Magnetism Division (MA)

Invited Talks

MA 26.1 09:30 — 10:00 EB 202
Magnetic measurements at high resolution in an electron microscope: a review.
•*Josef Zweck*

MA 26.2 10:00 — 10:30 EB 202
Observation and Manipulation of Magnetic Skyrmions
•*Shinichiro Seki*

MA 26.3 10:45 — 11:15 EB 202
Visualisation Of Three Dimensional Magnetisation Of Magnetic Nanostructures
•*Charudatta Phatak*

MA 26.4 11:15 — 11:45 EB 202
Utilising chirality to explore local magnetic moments
•*Peter Schattschneider*

MA 26.5 11:45 — 12:15 EB 202
Linking magnetic properties to nanoscale spectral and spatial features
•*Thomas Thersleff, Jan Rusz, Shunsuke Muto, Klaus Leifer*

MA 28.1 11:30 — 12:00 H 0110
The Future of Magnetoreception Research in Animals
•*Erich Pascal Malkemper*

MA 31.1 15:00 — 15:30 H 1012
Ultrafast optical tuning of ferromagnetism in EuO via the carrier density
•*Manfred Fiebig*

MA 31.2 15:30 — 16:00 H 1012
Intra-atomic exchange in ultrafast magnetism
•*Martin Weinelt*

MA 31.3 16:15 — 16:45 H 1012
Laser induced ultrafast demagnetisation in solids: a time-dependent density functional theory perspective
•*Sangeeta Sharma, J. K. Dewhurst, K. Krieger, P. Elliott, E. K. U. Gross*

MA 31.4 16:45 — 17:15 H 1012
Ultrafast control of the exchange interaction with electric fields
•*Johan H. Mentink*

MA 31.5 17:15 — 17:45 H 1012
Controlling, probing and harnessing the strongest force in magnetism
•*Alexey Kimel*

Sessions

MA 22 09:30 — 13:00 EB 107
Multiferroics I (DF with DS/KR/MA/TT)

MA 23 09:30 — 11:30 H 0110
Spincaloric Transport I (jointly with TT)

MA 24 09:30 — 12:30 H 0112
Magnetic Materials I

MA 25 09:30 — 11:45 H 1012
Magnetic Imaging

MA 26 09:30 — 12:30 EB 202
Focus: Towards quantitative magnetic measurements at ultimate spatial resolution with electrons

MA 27 09:30 — 13:00 EB 301
Magnetisation / Demagnetisation Dynamics I

MA 28 11:30 — 12:15 H 0110
Bio-Magnetism (Magnetoreception)

MA 29 15:00 — 17:00 H 0110
Spincaloric Transport II (jointly with TT)

MA 30 15:00 — 17:00 H 0112
Magnetic Materials II

MA 31 15:00 — 17:45 H 1012
Focus: Ultra-fast magnetism under electronic nonequilibrium conditions

MA 32 15:00 — 17:45 EB 202
Spin Structures and Magnetic Phase Transitions

MA 33 15:00 — 18:50 EB 107
Multiferroics II (DF with DS/KR/MA/TT)

MA 34 09:30 — 11:30 ER 270
Topological insulators: Theory
(HL with DS/MA/O/TT)

MA 35 15:00 — 18:45 EB 301
Magnetisation / Demagnetisation Dynamics II

MA 36 11:45 — 13:00 ER 270
Topological insulators: Transport
(HL with DS/MA/O/TT)

MA 37 15:00 — 16:30 ER 270
Topological insulators: Structure and electronic structure (HL with DS/MA/O/TT)

Metal and Material Physics Division (MM)

Invited Talks, Topical Talks

MM 29.1 09:30 — 10:00 TC 006
The role of geometric boundaries on shape changes in biology
•*John Dunlop*

MM 32.1 10:15 — 10:45 TC 006
Structure-property relations in biological composite materials: An inspiration source for synthetic materials
•*Helge-Otto Fabritius, Joachim Enax, Xia Wu, Matthias Epple, Dierk Raabe*

MM 32.2 10:45 — 11:15 TC 006
Towards bioinspired adaptive composites using responsive microcapsules
•*André R. Studart*

MM 37.4 12:30 — 13:00 TC 006
Architectured strength: when tasty nuts and teeth meet:
•*Claudia Fleck, Paul Zaslansky, Wolf-Dieter Müller, Andreas Bührig-Polaczek, Thomas Speck*

MM 38.1 15:00 — 15:30 TC 006
Spatiotemporal deformation dynamics in metals
•*Robert Maass*

MM 43.1 18:30 — 19:00 TC 006
Structural vs Chemical Adsorption Transitions at Surfaces & Interfaces
•*Wayne Kaplan*

MM 44.1 19:00 — 19:30 TC 006
Modelling solid-solid phase transformations: Atomistic insight on mechanisms and interface properties
•*Jutta Rogal*

Sessions

MM 29 09:30 — 10:00 TC 006
Invited talk Dunlop

MM 30 10:15 — 11:45 H 0106
Methods in Computational Materials Modelling III: Thermodynamics

MM 31 10:15 — 11:30 H 0107
Liquid and Amorphous Metals IV: Structure and Electronic Properties of Glasses

MM 32 10:15 — 11:45 TC 006
Biomaterials and Biological materials I

MM 33 10:15 — 11:30 TC 010
Structural Materials I: Phase Stability and Mechanical Properties

MM 34 11:30 — 12:15 TC 010
Structural Materials II: Brazing and Welding

MM 35 11:45 — 13:15 H 0106
Methods in Computational Materials Modelling IV: Steels

MM 36 11:45 — 12:45 H 0107
Nanomaterials I: Excess Volume and Confinement

MM 37 11:45 — 13:15 TC 006
Biomaterials and Biological Materials II

MM 38 15:00 — 15:30 TC 006
Invited talk Maass

MM 39 15:45 — 17:45 H 0106
Methods in Computational Materials Modelling V: Kinetics and Beyond DFT

MM 40 15:45 — 18:00 H 0107
Nanomaterials II: Mechanical Properties

MM 41 15:45 — 17:15 TC 006
Electron Microscopy

MM 42 15:45 — 18:00 TC 010
Mechanical Properties I

MM 43 18:30 — 19:00 TC 006
Invited talk Kaplan

MM 44 19:00 — 19:30 TC 006
Invited talk Rogal

MM 45 20:00 — 21:00 TC 006
Annual General Meeting of the Metal and Material Physics Division and Presentation of the Best Poster Award

Surface Science Division (O)

Invited Talks, Topical Talks

O 42.1 09:30 — 10:15 HE 101
Understanding organic/inorganic interfaces from first principles
•*Leeor Kronik*

O 43.1 10:30 — 11:00 MA 005
Electronic Interactions and Ultrafast Carrier Dynamics at Hybrid Organic / Inorganic Interfaces
•*Oliver L. A. Monti*

O 44.2 10:45 — 11:15 HE 101
Electronic spectroscopy at the solid-liquid interface: a window to electrochemistry and solvation phenomena
•*Miquel Salmeron*

O 46.1 10:30 — 11:00 MA 001
Opportunities for THz-pump x-ray-probe experiments at free-electron lasers
•*Wilfried Wurth*

O 46.2 11:00 — 11:30 MA 001
Understanding the Ultrafast Insulator-Metal Tranisition in Vanadium Dioxide: An Ultrabroadband Terahertz Perspective
•*Alfred Leitenstorfer, Bernhard Mayer, Alexej Pashkin*

O 46.3 11:30 — 12:00 MA 001
Magnetisation Dynamics seen via Pump-Probe Holographic X-ray Imaging
•*Stefan Eisebitt*

O 46.4 12:00 — 12:30 MA 001
THz induced spin motions probed by x-rays
•*Urs Staub*

O 47.1 10:30 — 11:00 MA 004
Transport and excitations in biased nanojunctions: DFT-based simulations
•*Mads Brandbyge*

O 48.8 12:15 — 12:45 MA 041
Electronic structure and electron dynamics in two-dimensional materials
•*Philip Hofmann*

O 54.1 13:15 — 13:45 HE 101
Porphyrin molecules at interfaces
•*Willi Auwärter (Laureate of the Gaede-Prize)*

O 55.1 15:00 — 15:30 HE 101
Electronic structure of Organo-Metal Halide Perovskites Films and Interfaces
•*Antoine Kahn*

O 56.1 15:00 — 15:30 MA 004
Ultrafast coherent dynamics in photovoltaics
•*Carlo Andrea Rozzi, Sarah Maria Falke, Daniele Brida, Margherita Maiuri, Michele Amato, Ephraim Sommer, Antonietta De Sio, Angel Rubio, Giulio Cerullo, Elisa Molinari, Christoph Lienau*

O 57.3 15:30 — 16:00 MA 005
2D silcon materials: From single layer silicene to double-layer structures and multi-layer stacks
•*Patrick Vogt*

Sessions

O 42 09:30 — 10:15 HE 101
Overview Talk (Leeor Kronik)

O 43 10:30 — 13:15 MA 005
Inorganic/Organic Interfaces: Electronic Properties I

O 44 10:30 — 11:30 HE 101
Focus Session: Structure, Chemistry, and Ion Solvation at Solid-Liquid Interfaces III

O 45 11:30 — 13:00 HE 101
Nonaqueous Liquid/Solid Interfaces

O 46 10:30 — 12:30 MA 001
Focus Session: THz meets X-ray

O 47 10:30 — 13:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale III

O 48 10:30 — 13:00 MA 041
Graphene: Dynamics

O 49 10:30 — 12:45 MA 042
Metal Substrates: Structure, Epitaxy and Growth

O 50 10:30 — 13:00 MA 043
Coupled Nanostructures and Light Localisation

O 51 09:30 — 11:30 ER 270
Topological Insulators: Theory
(HL with DS/MA/O/TT)

O 52 11:00 — 13:00 EW 201
Focus Session: Nanophotonic Concepts and Materials for Energy Harvesting – Plasmonics, Transformation Optics, Upconversion, and beyond

O 53 11:45 — 13:00 ER 270
Topological Insulators: Transport
(HL with DS/MA/O/TT)

O 54 13:15 — 13:45 HE 101
Gaede Prize Talk

O 55 15:00 — 18:15 HE 101
Inorganic/Organic Interfaces: Electronic Properties II

O 56 15:00 — 18:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale IV

O 57 15:00 — 17:45 MA 005
2D Materials beyond Graphene: TMDCs, Slicene and Relatives

O 58 15:00 — 18:00 MA 041
Electronic Structure of Surfaces II

O 59 15:00 — 18:15 MA 042
Oxide and Insulator Surfaces: Structure, Epitaxy and Growth

O 60 15:00 — 18:00 MA 043
Dielectric and Molecular/Water Interfaces

O 61 15:00 — 16:30 ER 270
Topological Insulators: Structure and Electronic Structure (HL with DS/MA/O/TT)

O 62 16:45 — 18:45 ER 270
Graphene: Applications, Luminescence and Spin Relaxation (HL with O/TT)

O 63 18:15 — 21:00 Poster A
2D Materials beyond Graphene

O 64 18:15 — 21:00 Poster A
New Methods

O 65 18:15 — 21:00 Poster A
Oxides and Insulators

O 66 18:15 — 21:00 Poster A
Electronic Structure of Surfaces

O 67 18:15 — 21:00 Poster A
Electronic Structure Theory: General, Method Development

O 68 18:15 — 21:00 Poster A
Electronic Structure Theory: Many-Body Effects

O 69 18:15 — 21:00 Poster A
Ultrafast Electron and Spin Dynamics

O 70 18:15 — 21:00 Poster A
Structural Dynamics in Nanoscale Materials Probed by Ultrashort Electron Pulses

O 71 18:15 — 21:00 Poster A
Surface Dynamics

O 72 18:15 — 21:00 Poster A
Graphene: Adsorption, Intercalation and Doping

O 73 18:15 — 21:00 Poster A
Nanostructures at Surfaces: 1D and 2D Structures

O 74 18:15 — 21:00 Poster A
Oxide and Insulator Surfaces

O 75 18:15 — 21:00 Poster A
Plasmonics and Nanooptics

Physics of Socio-economic Systems Division (SOE)

Topical Talk

SOE 15.1 16:45 — 17:15 MA 001
The Industrial Society's natural Sustainability
•*Hans G. Danielmeyer, Thomas Martinetz*

Sessions

SOE 12 09:30 — 12:15 H 0105
Physics of Sustainability and Human-Nature Interactions (Symposium SYPS)

SOE 13 15:00 — 16:30 MA 001
Opinion Formation, Segregation, and Language Dynamics

SOE 14 15:00 — 16:30 A 151
Fluctuating Electricity Supply: Modelling of Generation, Backup and Storage
(joint session AKE/DY/SOE)

SOE 15 16:45 — 18:30 MA 001
Physics of Sustainability and Human-Nature Interactions I (joint with DY, jDPG, BP, AKE) – session accompanying the symposium SYPS

SOE 16 18:35 — 19:30 MA 001
Annual General Meeting of the Physics of Socio-economic Systems Division

Low Temperature Physics Division (TT)

Invited Talks, Topical Talks

TT 51.1 09:30 — 10:00 H 0104
High Power Equipment based on High-Temperature Superconductors: the Added Value from an Industrial Point of View
•*Tabea Arndt, Michael Frank, Jörn Grundmann, Anne Kuhnert, Peter Kummeth, Hans-Peter Krämer, Wolfgang Nick, Marijn Oomen, Christian Schacherer*

TT 51.2 10:00 — 10:30 H 0104
Conductors and Cables from REBCO High Temperature Superconductors for Applications
•*Wilfried Goldacker*

TT 51.3 10:30 — 11:00 H 0104
Power Transmission via Superconducting Lines
•*Amalia Ballarino*

TT 51.4 11:15 — 11:45 H 0104
High field transport properties of MBE processed Fe-based superconducting thin films
•*Kazumasa Iida*

TT 51.5 11:45 — 12:15 H 0104
Advanced Superconducting Power Cable for MV Urban Power Supply
•*Frank Schmidt, Frank Merschel, Mathias Noe*

TT 65.1 15:00 — 15:30 H 0104
Strong Correlations in Disordered One-Dimensional Systems
•*Christoph Karrasch, Joel Moore*

TT 66.9 17:15 — 17:45 H 2053
Probing Andreev Bound States in One-Atom Superconducting Contacts
•*Hugues Pothier, Camille Janvier, Leandro Tosi, Çalğar Girit, Marcelo Goffman, Daniel Esteve, Cristiàn Urbina*

TT 68.7 16:45 — 17:15 H 3010
Structural Stability and Lattice Dynamics of Correlated Electron Materials
•*Ivan Leonov*

Sessions

TT 51 09:30 — 12:15 H 0104
Focus Session: Electric Power Applications of Superconductivity

TT 52 09:30 — 12:30 H 2053
Superconductivity: Fe-based Superconductors – FeSe and others

TT 53 09:30 — 09:45 H 3005
Superconductivity: Vortex Physics

TT 54 09:45 — 11:00 H 3005
Superconductivity: Heterostructures

TT 55 09:30 — 13:00 H 3010
Low-Dimensional Systems: 2D – Theory

TT 56 09:30 — 13:15 A 053
Correlated Electrons: Quantum-Critical Phenomena – Theory

TT 57 11:30 — 12:45 H 3005
Transport: Fluctuations and Noise
(jointly with CPP, DY)

TT 58 09:30 — 11:30 H 0110
Spincaloric Transport I (jointly with MA)

TT 59 09:30 — 13:00 EB 107
Multiferroics I (jointly with DF, DS, KR, MA)

TT 60 09:30 — 13:00 C 130
Organic Electronics and Photovoltaics: OPV II
(jointly with CPP, HL)

TT 61 10:30 — 13:30 MA 004
Frontiers of Electronic Structure Theory:
Organics and Materials (jointly with O, HL)

TT 62 10:30 — 13:00 MA 041
Graphene: Dynamics (jointly with O, HL)

TT 63 09:30 — 11:30 ER 270
Topological Insulators: Theory
(jointly with HL, DS, MA, O)

TT 64 11:00 — 13:00 EW 202
Quantum Information Systems:
Mostly Concepts (jointly with HL)

TT 65 15:00 — 19:15 H 0104
Low-Dimensional Systems: 1D – Theory

TT 66 15:00 — 19:15 H 2053
Superconductivity: Tunneling, Josephson Junctions, SQUIDs

TT 67 15:00 — 17:45 H 3005
Correlated Electrons: f-Electron Systems

TT 68 15:00 — 18:15 H 3010
Correlated Electrons: (General) Theory 1

TT 69 15:00 — 19:00 A 053
Other Low Temperature Topics: Cold Atomic Gases

TT 70 18:00 — 19:15 H 3005
Correlated Electrons: Spin Systems and Itinerant Magnets – Chiral Magnets (jointly with MA)

TT 71 15:00 — 18:00 Poster B
Correlated Electrons: Poster Session

TT 72 15:00 — 18:00 Poster B
Low-Dimensional Systems: Poster Session

TT 73 15:00 — 17:00 H 0110
Spincaloric Transport II (jointly with MA)

TT 74 15:00 — 17:45 H 1012
Focus Session: Ultra-Fast Magnetism under Electronic Nonequilibrium Conditions (organised by MA)

TT 75 15:00 — 18:50 EB 107
Multiferroics II (jointly with DF, DS, KR, MA)

TT 76 16:45 — 18:45 ER 270
Graphene: Applications, Luminescence, and Spin Relaxation (jointly with HL, O)

TT 77 15:00 — 16:30 ER 270
Topological Insulators: Structure and Electronic Structure (jointly with HL, DS, MA, O)

TT 78 11:45 — 13:00 ER 270
Topological Insulators: Transport (jointly with HL, DS, MA, O)

TT 79 15:00 — 18:30 MA 004
Frontiers of Electronic Structure Theory: Optical Excitation (organised by O)

TT 80 15:00 — 17:45 MA 005
2D Materials Beyond Graphene: TMDCs, Silicene and Relatives (organised by O)

TT 81 18:15 — 21:00 Poster A
Electronic Structure Theory: Many-Body Effects (organised by O)

TT 82 18:15 — 21:00 Poster A
Electronic Structure Theory: General, Method Development (organised by O)

TT 83 18:15 — 21:00 Poster A
Graphene: Adsorption, Intercalation and Doping (organised by O)

History of Physics Division (GP)

Sessions

GP 7 09:30 — 11:15 HL 001
Rüstungsforschung II

GP 8 11:15 — 13:15 HL 001
Freie Sektion I

GP 9 15:00 — 17:30 HL 001
Freie Sektion II

Gravitation and Relativity Division (GR)

Invited Talks

GR 9.1 09:30 — 10:10 H 2013
Gravitational radiation from compact binary systems
•*Luc Blanchet*

GR 9.2 10:10 — 10:50 H 2013
Black Holes and Neutron Stars in Numerical General Relativity
•*Bernd Bruegmann*

GR 9.3 11:10 — 11:50 H 2013
Supernova Cosmology
•*Bruno Leibundgut*

GR 9.4 11:50 — 12:30 H 2013
Large scale structures in the universe
•*Volker Mueller*

GR 10.1 15:00 — 15:40 H 2013
Neutron-star binaries: Einstein's richest laboratory
•*Luciano Rezzolla*

Sessions

GR 9 09:30 — 12:30 H 2013
Invited Talks 4

GR 10 15:00 — 15:40 H 2013
Invited Talks 5

GR 11 15:40 — 17:10 H 2013
Relativistic Astrophysics

GR 12 17:10 — 18:10 H 2013
Gravitational Waves

GR 13 16:30 — 18:30 H 2033
Alternative Aspects and Approaches

Microprobes Division (MI)

Invited Talk

MI 9.1 11:45 — 12:30 EMH 225
Experiments with the intense and brightness enhanced positron beam at NEPOMUC
•*Christian Piochacz, Thomas Gigl, Niklas Grill, Markus Reiner, Samantha Zimnik, Christoph Hugenschmidt*

Sessions

MI 7 09:30 — 10:45 EMH 225
X-ray Imaging, Tomography and X-ray Optics

MI 8 11:00 — 11:30 EMH 225
Ionenstrahlmethoden

MI 9 11:45 — 13:00 EMH 225
Positron Annihilation Studies of Condensed Matter

MI 10 15:00 — 17:30 Poster B
Poster: Microanalysis and Microscopy

Theoretical and Mathematical Physics Division (MP)

Invited Talks

MP 8.1 11:00 — 11:40 HFT-FT 101
Semigroup of gauge fields from noncommutative geometry
•*Walter van Suijlekom*

MP 10.1 15:00 — 15:40 HFT-FT 101
Functional renormalisation group for the scale-dependent effective action
•*Andreas Wipf*

Sessions

MP 6 09:30 — 10:30 HFT-FT 101
Quantenfeldtheorie I

MP 7 10:35 — 10:55 HFT-FT 101
Integrable Strukturen

MP 8 11:00 — 11:40 HFT-FT 101
HV van Suijlekom

MP 9 11:45 — 12:45 HFT-FT 101
Quantenmechanik I

MP 10 15:00 — 15:40 HFT-FT 101
HV Wipf

MP 11 15:45 — 16:45 HFT-FT 101
Quantenfeldtheorie II

MP 12 16:50 — 17:30 HFT-FT 101
Quantenmechanik II

MP 13 17:35 — 17:55 HFT-FT 101
Klassische Feldtheorie

18:00 — 19:00 HFT-FT 101
Annual General Meeting of the Theoretical and Mathematical Physics Division

Working Group on Energy (AKE)

Invited Talks

AKE 10.1 09:30 — 10:00 A 151
Neue Materialien und Komponenten für Energieeffiziente Gebäudehüllen
•*Ulrich Heinemann, Helmut Weinläder, Hans-Peter Ebert, Stephan Weismann*

AKE 11.1 10:15 — 10:45 A 151
Ganzheitliche Bewertung von Stromerzeugungssystemen
•*Rainer Friedrich, Markus Blesl*

AKE 12.1 11:15 — 11:45 A 151
Electricity by Intermittent Sources
•*Friedrich Wagner*

AKE 13.1 15:00 — 15:30 A 151
Fluctuations from photovoltaic and wind power systems
•*Detlev Heinemann, Gerald Lohmann, Mohammed Reza Rahimi Tabar, Mehrnaz Anvari*

Sessions

AKE 10 09:30 — 10:15 A 151
Energy efficient Building envelopes

AKE 11 10:15 — 10:45 A 151
Integral Assessment of Electricity Generation Systems

AKE 12 11:15 — 12:15 A 151
Implications of Fluctuating Electricity Generation

AKE 13 15:00 — 16:30 A 151
Fluctuating Electricity Supply: Modelling of Generation, Backup and Storage
(joint session AKE/DY/SOE)

AKE 14 16:45 — 18:30 MA 001
Physics of Sustainability and Human-Nature Interactions I (joint with DY, jDPG, BP, AKE) – session accompanying the symposium SYPS

Working Group on Physics and Disarmament (AGA)

Invited Talk

AGA 7.1 15:00 — 16:00 EMH 225
Disposition of excess weapon grade plutonium: Status of the Russian program.
•*Anatoly Diyakov*

Sessions

AGA 6 09:30 — 11:15 HL 001
Research for the Military II

AGA 7 15:00 — 17:00 EMH 225
Disposition of Excess Weapon Plutonium

AGA 8 17:00 — 18:00 EMH 225
Acoustic and Seismic Signals for Safeguards and Verification

Working Group on Information (AGI)

Invited Talks

AGI 1.1 09:30 — 10:15 TA 251
Der Umgang mit Forschungsdaten in einer digital geprägten Informationsinfrastruktur
•*Peter Schirmbacher*

AGI 2.1 11:15 — 12:00 TA 251
Großbritannien – Erfahrungen auf dem Weg zu 100 % Open Access
•*Torsten Reimer*

Sessions

AGI 1 09:30 — 11:15 TA 251
Digitale Agenda in Theorie und Praxis: Was geschieht in der Wissenschaft? (mit AGjDPG)

AGI 2 11:15 — 12:30 TA 251
Open Access auf der Zielgeraden?

15:00 — 16:00 TA 251
Annual General Meeting of the Working Group on Information

Working Group „Young DPG“ (AGjDPG)

Invited Talk

AGjDPG 6.1 15:00 — 16:00 HFT-FT 131
Data Visualisation: Journey to the 2nd Dimension
•*Martin Zaltz Austwick*

Sessions

AGjDPG 4 09:30 — 11:15 TA 251
Digitale Agenda in Theorie und Praxis: Was geschieht in der Wissenschaft? (mit AGjDPG)

AGjDPG 5 09:30 — 12:15 H 0105
Physics of Sustainability and Human-Nature Interactions

AGjDPG 6 15:00 — 16:00 HFT-FT 131
Data Visualisation

Working Group on Philosophy of Physics (AGPhil)

Invited Talks

AGPhil 4.1 09:30 — 10:15 A 060
Einstein Equations and Hilbert Action: David Hilbert’s Contributions to General Relativity
•*Tilman Sauer*

AGPhil 5.1 15:00 — 15:45 A 060
„What is truth?“ Einstein on Rods and Clocks in Relativity Theory
•*Marco Giovanelli*

Sessions

AGPhil 4 09:30 — 12:00 A 060
Foundations of Classical Gravity

AGPhil 5 15:00 — 17:30 A 060
Rods, Clocks, Space and Energy in General Relativity

Public Evening Talks, Max-von-Laue-Lecture (Entrance free)

PV XIX 18:00 H 0105
Unmaking the Bomb: A Fissile Material Approach to Nuclear Disarmament and Nonproliferation
•*Frank N. von Hippel (Max-von-Laue-Lecture)*

PV XX 20:00 Urania
Musikalische Rhythmen und Algorithmen: Physiker auf anderen Wegen
•*Theo Geisel*

Job Market

12:00 — 13:00 PC 203
d-fine GmbH

13:15 — 14:15 PC 203
Forschungszentrum Jülich GmbH

09:00 — 19:00 Main Building
„Role model"-Exhibition

Exhibition of Scientific Instruments and Literature

09:00 — 17:00 Lichthof, Foyer EG, EG rechts, 1.OG, Tents

Thursday, March 19, 2015

Plenary Talks, Evening Talk, Prize Talks, Special Talk

PV XXI 08:30 — 09:15 H 0105
Transversal transport coefficients and topological properties
•*Ingrid Mertig*

PV XXII 13:15 — 13:45 H 0104
Optics in Medicine
•*Michael Totzeck*

PV XXIII 13:15 — 13:45 H 0105
Quantum Universe
•*Viatcheslav Mukhanov*
(Laureate of the Max-Planck-Medal)

PV XXIV 13:15 — 13:45 EW 201
Theoretische Beschreibung des Trocknungsverhaltens dicker Photoresistschichten
•*Maik Schönfeld*
(Laureate of the Georg-Simon-Ohm-Prize), Jens Saupe, Steffen Schubert, Jürgen Grimm

PV XXV 14:00 — 14:45 H 0104
Collective Motion, Collective Decision-making, and Collective Action: From Microbes to Societies
•*Simon Levin*

PV XXVI 14:00 — 14:45 H 0105
Two-dimensional materials beyond graphene: atomically thin semiconductors
•*Tony F. Heinz*

Symposium Geometric Paradigms in Modern Physics (SYGP)

Invited Talks

SYGP 1.1 15:00 — 15:30 H 0105
General relativity: a theory born in creative confusion
•*Harvey Brown*

SYGP 1.2 15:30 — 16:00 H 0105
Gravitating Non-Abelian Fields: Solitons and Black Holes
•*Jutta Kunz*

SYGP 1.3 16:00 — 16:30 H 0105
Geometric principles in the physics of topological matter
•*Alexander Altland*

SYGP 1.4 16:30 — 17:00 H 0105
General Covariance in Quantum Field Theory on Curved Spacetimes
•*Thomas-Paul Hack*

SYGP 1.5 17:00 — 17:30 H 0105
The (noncommutative) Geometry of the Standard Model of Particle Physics
•*Christoph Stephan*

Session

SYGP 1 15:00 — 17:30 H 0105
Geometric paradigms in modern physics

Symposium Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-Scale (SYME)

Sessions

SYME 6 10:30 — 13:15 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale V

SYME 7 15:00 — 18:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale VI

Symposium Magic MAX Phases: Self-healing, Magnetism and the Next Best Graphene (SYMM)

Invited Talks

SYMM 1.1 09:30 — 10:15 H 0105
From MAX to MXene – From 3D to 2D
•*Michel Barsoum*

SYMM 1.2 10:15 — 10:45 H 0105
Structure evolution during low temperature growth of nanolaminate thin films
•*J.M. Schneider, L. Shang, H. Bolvardi, Y. Jiang, A. Al Gaban, D. Music, M. to Baben*

SYMM 1.3 11:00 — 11:30 H 0105
Autonomous healing of crack damage in MAX phase ceramics
•*Willem G. Sloof*

SYMM 1.4 11:30 — 12:00 H 0105
Magnetic MAX phases from first principles and thin film synthesis
•*Johanna Rosen*

SYMM 1.5 12:00 — 12:30 H 0105
Weak Field Magneto-Transport Properties of Mn+1AXn Phases
•*Thierry Ouisse, Lu Shi, Benoit Hackens, Benjamin Piot, Didier Chaussende*

Session

SYMM 1 09:30 — 12:30 H 0105
Magic MAX Phases: Self-healing, Magnetism and the next best Graphene

Biological Physics Division (BP)

Invited Talks

BP 41.1 09:30 — 10:00 H 1058
Probing the downhill folding kinetics of Lambda repressor variants with optical tweezers
Ann Mukhortava, Andreas Hartmann,
•*Michael Schlierf*

BP 42.1 09:30 — 10:00 H 1028
Microtubules adapt to mechanical stress through spontaneous intra-lattice repair
Laura Schaedel, Karin John, Jeremie Gaillard, Maxence Nachury, Laurent Blanchoin,
•*Manuel Thery*

BP 42.7 11:30 — 12:00 H 1028
Cellular chirality arising from the self-organisation of the actin cytoskeleton
•*Alexander Bershadsky*

BP 44.1 15:00 — 15:30 H 1058
Molecular Systems Engineering with DNA: Four pieces, one rule, and many possibilities.
•*Hendrik Dietz*

BP 49.1 16:45 — 17:15 H 1028
Directional bias in the kinesin superfamily of molecular motors
•*Robert Cross*

Sessions

BP 41 09:30 — 13:00 H 1058
Protein structure and dynamics I

BP 42 09:30 — 13:00 H 1028
Cytoskeletal filaments (joint BP/CPP)

BP 43 12:00 — 13:15 MA 001
Networks: From Topology to Dynamics II (joint SOE/DY/BP)

BP 44 15:00 — 17:00 H 1058
DNA/RNA and related enzymes

BP 45 15:00 — 16:15 H 1028
Systems biology

BP 46 15:00 — 18:00 C 264
Biomaterials and Biopolymers II (joint CPP/BP)

BP 47 15:45 — 18:00 PC 203
Microswimmers, Active Liquids I (joint CPP/BP/DY)

BP 48 17:00 — 18:30 MA 001
Physics of Sustainability and Human-Nature Interactions II (joint SOE/DY/jDPG/BP/AKE)

BP 49 16:45 — 18:45 H 1028
Molecular motors

BP 50 17:30 — 18:45 H 1058
Biotechnology and bioengineering

BP 51 18:00 — 18:30 C 264
Physics of Food (joint CPP/BP)

Chemical and Polymer Physics Division (CPP)

Invited Talks

CPP 60.1 09:30 — 10:00 C 130
Advances in hybrid solar cells: From hybrid organic/inorganic to perovskite photovoltaics
•*Lukas Schmidt-Mende*

CPP 60.7 11:30 — 12:00 C 130
The solid state physics of hybrid perovskites
•*Jarvist Moore Frost, Federico Brivio, Keith Butler, Aurelien Leguy, Artem Bakulin, Piers Barnes, Aron Walsh*

CPP 61.1 09:30 — 10:00 C 243
Flow instabilities in soft glassy materials
•*Suzanne Fielding*

CPP 61.5 10:45 — 11:15 C 243
Dense granular flow
•*Annette Zippelius*

CPP 68.1 15:00 — 15:30 C 130
Photophysics of organic-inorganic hybrid lead iodide perovskite single crystals
•*Maria Antonietta Loi*

CPP 68.2 15:30 — 16:00 C 130
Exciton stabilisation in hybrid lead-halide perovskites: photophysical versus structural properties
•*Annamaria Petrozza*

CPP 72.1 15:45 — 16:15 PC 203
Flagellar synchronisation through direct hydrodynamic interactions
•*Marco Polin, Douglas Brumley, Kirsty Wan, Raymond Goldstein*

CPP 72.2 16:15 — 16:45 PC 203
Active motion: From single microswimmers to their emergent collective behaviour
•*Holger Stark*

CPP 73.1 15:30 — 16:00 C 243
Microscopic flows of complex suspensions
•*Anke Lindner*

CPP 74.1 17:00 — 17:30 C 243
Multiscale Contact Mechanics for Rough Surfaces with Applications to Rubber Friction and the Leak-rate of Rubber Seals
•*Bo Persson*

Sessions

CPP 60 09:30 — 13:00 C 130
Focus Session Hybrid Photovoltaics and Prevovskites I (joint session CPP HL, O)

CPP 61 09:30 — 13:00 C 243
Focus: Disordered Systems, Glasses under Shear I (joint session CPP, DY)

CPP 62 09:30 — 11:45 BH-N 334
Complex Fluids and Soft Matter – Part II (joint session DY, CPP, BP)

CPP 63 09:30 — 13:00 H 1028
Cytoskeletal filaments (Joint session BP, CPP)

CPP 64 09:30 — 12:00 C 264
Flow-Induced Structures in Complex Fluids (with DRG, Deutsche Rheologische Gesellschaft, and DY)

CPP 65 09:30 — 10:30 PC 203
(Hydro)gels and Elastomers

CPP 66 09:30 — 11:00 H 3010
Low-Dimensional Systems: Molecular Conductors (joint session with CPP, HL, MA, O)

CPP 67 12:00 — 13:00 C 264
Mitgliederversammlung der Deutschen Rheologischen Gesellschaft (DRG)

CPP 68 15:00 — 18:15 C 130
Focus Session Hybrid Photovoltaics and Perovskites (joint session CPP, HL)

CPP 69 15:00 — 18:00 C 264
Biomaterials and Biopolymers
(joint session CPP, BP)

CPP 70 15:00 — 16:45 BH-N 334
Complex Fluids and Soft Matter – Part III
(joint session DY, CPP, BP)

CPP 71 15:00 — 17:30 BH-N 128
Glasses and Glass transition
(joint session DY, CPP, DF)

CPP 72 15:45 — 18:00 PC 203
Microswimmers, Active Liquids I
(joint session CPP, BP, DY)

CPP 73 15:30 — 17:00 C 243
Focus:
Disordered Systems/Glasses under Shear
(joint session CPP, DY)

CPP 74 17:00 — 17:45 C 243
Friction and Lubrication

CPP 75 18:00 — 18:30 C 264
Physics of Food (joint session CPP, BP)

Dielectric Solids Division (DF)

Topical Talks

DF 16.1 09:30 — 10:00 EB 407
New application scenarios for dielectric materials in mobile communication systems of the 5th generation
•*Roland Gabriel*

DF 16.5 11:00 — 11:30 EB 407
Dielectric-loaded antennas for circular polarisation: their contribution to the information capacity of wireless terminals
•*Oliver Leisten*

DF 16.8 12:30 — 13:00 EB 407
Tunable GHz-components with ferroelectric and liquid crystal technologies for mobile terrestrial and satellite-based systems
•*Rolf Jakoby*

DF 17.1 15:00 — 15:30 EB 407
Temperature stable low loss ceramics for resonators and filters
•*Ian Reaney*

DF 17.5 16:30 — 17:00 EB 407
Low loss flexible and stretchable dielectrics for microwave applications
•*Mailadil Sebastian*

Sessions

DF 16 09:30 — 13:00 EB 407
Focused Session on GHz Dielectrics: Materials for Mobile Communication I (DF with HL/MM)

DF 17 15:00 — 17:00 EB 407
Focused Session on GHz Dielectrics: Materials for Mobile Communication II (DF with HL/MM)

DF 18 15:00 — 17:30 BH-N 128
Glasses and Glass Transition I (DY with DF/CPP)

Thin Films Division (DS)

Invited Talks

DS 34.1 09:30 — 10:00 H 2032
Growth, properties and devices of gallium-oxide-based widegap semiconductors
•*Shizuo Fujuta*

DS 34.6 11:30 — 12:00 H 2032
$BaSnO_3$; The next generation of transparent conducting oxide?
•*David Scanlon*

DS 37.1 15:00 — 15:30 H 2032
Optical properties and band structure of transparent semiconducting oxides
•*Rüdiger Goldhahn*

DS 37.6 16:45 — 17:15 H 2032
Thermodynamic stability and electronic structure of TCO surfaces: A computational approach
•*Karsten Albe, Peter Agoston, Manuel Diehm, Arno Fey*

DS 37.10 18:00 — 18:30 H 2032
Synthesis and Stability of Indium (III) Oxide Polymorphs
•*Aleksander Gurlo, Maged Bekheet*

Sessions

DS 34 09:30 — 12:45 H 2032
Focussed Session: Oxide semiconductors I (joint session with HL)

DS 35 09:30 — 13:00 H 0111
Graphen

DS 36 09:30 — 12:00 Poster A
Poster Session I

DS 37 15:00 — 19:00 H 2032
Focussed Session: Oxide semiconductors II (joint session with HL)

DS 38 15:00 — 18:45 H 0111
Phase change/ resistive switching

DS 39 16:00 — 18:30 Poster F
Poster Session II

Dynamics and Statistical Physics Division (DY)

Invited Talks

DY 41.1 09:30 — 10:00 BH-N 334
Ultrasoft particles under out-of-equilibrium conditions
•*Gerhard Kahl*

DY 42.1 09:30 — 10:00 BH-N 128
Time-delayed feedback control of self-organised structures in dissipative systems
•*Svetlana Gurevich, Felix Tabbert, Alexander Kraft*

DY 50.1 15:00 — 15:30 BH-N 243
Branched Flows, Extreme Waves and the Random Focusing of Tsunami Waves
•*Ragnar Fleischmann*

DY 51.1 15:00 — 15:30 BH-N 334
Melting of soft disks: From liquid-hexatic coexistence to continuous transitions
•*Sebastian C. Kapfer, Manon Michel, Werner Krauth*

Sessions

DY 41 09:30 — 11:45 BH-N 334
Complex Fluids and Soft Matter – Part II (joint session DY/ CPP / BP)

DY 42 09:30 — 11:00 BH-N 128
Delay and Feedback Dynamics

DY 43 09:30 — 12:45 BH-N 243
Energy Systems and Power Grid (joint session DY/AK Energy/SOE)

DY 44 09:30 — 12:15 BH-N 333
Pattern Formation

DY 45 09:30 — 13:00 C 243
Focus: Disordered Systems, Glasses under Shear I (joint session CPP/DY)

DY 46 09:30 — 12:00 C 264
Flow-Induced Structures in Complex Fluids – Part II (joint session CPP/ DRG, Deutsche Rheologische Gesellschaft/DY)

DY 47 09:30 — 11:15 H 2053
Superconductivity: Higgs Modes in Condensed Matter and Quantum Gases (joint session TT/ DY/ MA/ O)

DY 48 12:00 — 13:15 MA 001
Networks: From Topology to Dynamics – Part II
(joint session SOE/ DY/ BP)

DY 49 12:00 — 13:15 MA 001
Dynamics on and of Networks
(joint session SOE/ DY / BP)

DY 50 15:00 — 17:00 BH-N 243
Extreme Events (joint session DY/ SOE)

DY 51 15:00 — 16:45 BH-N 334
Complex Fluids and Soft Matter – Part III
(joint session DY/ CPP / BP)

DY 52 15:00 — 17:30 BH-N 128
Glasses and Glass transition
(joint session DY/DF/CPP)

DY 53 15:30 — 17:00 C 243
Focus: Disordered Systems/Glasses under Shear (joint session CPP/DY)

DY 54 15:45 — 18:00 PC 203
Microswimmers, Active Liquids – Part II
(joint session CPP/BP/DY)

DY 55 16:00 — 18:00 Poster A
Poster – Quantum Systems

DY 56 16:00 — 18:00 Poster A
Poster – Statistical Physics

DY 57 16:00 — 18:00 Poster A
Poster – Diffusion

DY 58 16:00 — 18:00 Poster A
Poster – Fluids

DY 59 16:00 — 18:00 Poster A
Poster – networks

DY 60 16:00 — 18:00 Poster A
Poster – complex systems and data analysis

DY 61 16:00 — 18:00 Poster A
Poster – Glasses

DY 62 16:00 — 18:00 Poster A
Poster – Dynamics

DY 63 17:00 — 18:30 MA 001
Physics of Sustainability and Human-Nature Interactions II (joint session SOE/DY/jDPG/BP)

DY 64 18:00 — 19:00 BH-N 334
Annual General Meeting of the Dynamics and Statistical Physics Division

Semiconductor Physics Division (HL)

Invited Talks

HL 62.1 09:30 — 10:00 ER 270
Folded Graphene – Solid State Physics in a Nutshell
•*Rolf J. Haug, Johannes C. Rode, Hennrik Schmidt, Dmitri Smirnov*

HL 64.1 09:30 — 10:00 EW 202
Energy efficient optical interconnects for datacom and HPCs
•*Dieter Bimberg*

HL 64.2 10:00 — 10:30 EW 202
Plasmonic and Metallic Cavity Semiconductor Nanolasers for Ultimate Miniaturisation
•*C. Z. Ning*

HL 64.3 10:30 — 11:00 EW 202
Polymer waveguides for electro-optical integration in data centers
•*Roger Dangel, Jens Hofrichter, Folkert Horst, Daniel Jubin, Antonio La Porta, Norbert Meier, Jonas Weiss, Bert Jan Offrein*

HL 64.4 11:15 — 11:45 EW 202
Silicon Photonics for Optical Interconnects
• *Roel Baets*

HL 64.5 11:45 — 12:15 EW 202
Long wavelength VCSELs for optical interconnects
•*Markus Amann*

HL 78.1 12:30 — 13:00 ER 164
Electrical spin injection into high mobility 2DEG systems
Martin Oltscher, •Mariusz Ciorga, Josef Loher, Dieter Schuh, Dominique Bougeard, Dieter Weiss

HL 82.1 15:00 — 15:30 EW 202
Group IV GeSn alloys – a viable solution for Si-based light emitters
•*Dan Buca, Stephan Wirths, Siegfried Mantl, Detlev Grützmacher*

Sessions

HL 62 09:30 — 10:00 ER 270
Invited Talk Rolf Haug

HL 63 09:30 — 11:30 EW 015
Group IV elements and compounds

HL 64 09:30 — 12:45 EW 202
Focus Session: Optical interconnects – Materials, devices, and integration

HL 65 09:30 — 12:45 H 2032
Focus Session (DS with HL):
Oxide semiconductors I

HL 66 09:30 — 13:00 C 130
Focus Session (CPP with HL):
Hybrid photovoltaics and perovskites I

HL 67 09:30 — 12:00 EB 202
Topological insulators I (MA with HL/TT)

HL 68 09:30 — 11:00 H 3010
Low-dimensional systems:
Molecular conductors (TT with CPP/HL/MA/O)

HL 69 09:30 — 13:00 EB 407
GHz Dielectrics – Materials for mobile communication I (DF with HL/MM)

HL 70 10:00 — 12:30 ER 164
Spintronics: Mobile electrons and holes (with MA/TT)

HL 71 10:15 — 12:30 EW 201
New concepts and new materials

HL 72 10:15 — 11:45 EW 203
Quantum wires

HL 73 10:30 — 13:00 MA 041
Graphene: Structure (O with HL/TT)

HL 74 10:30 — 13:15 MA 004
Frontiers of electronic structure theory:
2D TMDC and excitonic effects

HL 75 11:00 — 13:00 A 053
Transport: Quantum dots, quantum wires,
point contacts 1 (TT with HL)

HL 76 11:30 — 13:00 EW 015
Carbon nanotubes

HL 77 11:30 — 13:00 H 3010
Low-dimensional systems:
Topological order 1 (TT with HL)

HL 78 12:30 — 13:00 ER 164
Invited Talk Mariusz Ciorga

HL 79 15:00 — 17:00 ER 164
Quantum information systems:
Si vacancies and NV centers (with TT)

HL 80 15:00 — 17:15 EW 015
Challenges in semiconductor theory

HL 81 15:00 — 18:15 EW 201
Heterostructures and interfaces

HL 82 15:00 — 15:30 EW 202
Invited Talk Dan Buca

HL 83 15:00 — 19:00 H 2032
Focus Session: Oxide semiconductors II
(DS with HL)

HL 84 15:00 — 18:15 C 130
Focus Session (CPP with HL): Hybrid photo-
voltaics and perovskites II

HL 85 15:00 — 17:45 EB 202
Topological Insulators 2 (MA with HL/TT)

HL 86 15:00 — 18:30 A 053
Transport: Quantum dots, quantum wires, point contacts 2 (TT with HL)

HL 87 15:00 — 18:30 H 3010
Low-dimensional systems: Topological order 2 (TT with DS/HL/MA/O)

HL 88 15:00 — 17:00 EB 407
GHz Dielectrics – Materials for mobile communication II (DF with DY/HL/MM)

HL 89 15:00 — 18:15 MA 041
Graphene: Electronic structure (O with HL/TT)

HL 90 15:00 — 18:45 H 0111
Phase change / resistive switching (DS with HL)

HL 91 15:00 — 18:30 MA 004
Frontiers of electronic structure theory: Many-body effects, methods

HL 92 15:45 — 17:45 EW 202
VCSELs, optical interconnects and Si photonics

HL 93 15:45 — 17:45 EW 203
III-V semiconductors (other than nitrides)

HL 94 14:00 — 20:00 Poster B
Poster IV A (Laser; Devices; Heterostructures; Surfaces, interfaces and defects)

HL 95 14:00 — 20:00 Poster B
Poster IV B (Quantum dots and wires: Preprations, characterisation, optical properties, and transport)

HL 96 14:00 — 20:00 Poster B
Poster III C (III-V Semiconductors incl. Nitrides)

18:00 — 19:00 EW 015
Annual General Meeting of the Semiconductor Physics Division

Magnetism Division (MA)

Invited Talks

MA 41.1 09:30 — 10:15 H 1012
Optically-induced magnetisation switching: Experiments and models
•*Hans Christian Schneider*

MA 41.2 10:15 — 10:45 H 1012
All optical control of magnetic thin films and nanostructures
•*Eric Fullerton*

MA 41.3 11:00 — 11:30 H 1012
All-optical switching: a challenge for its theoretical description
•*Ulrich Nowak, Sönke Wienholdt, Steffen Sievering, Denise Hinzke, Karel Carva, Peter Oppeneer*

MA 41.4 11:30 — 12:00 H 1012
All-optical helicity-dependent magnetic switching in Tb-Fe
•*Rudolf Bratschitsch*

MA 41.5 12:00 — 12:30 H 1012
Ultrafast magnetisation dynamics of thin films showing helicity dependent magnetisation switching
•*Grégory Malinowski*

Sessions

MA 38 09:30 — 12:45 H 0110
Magnetic Nanoparticles

MA 39 09:30 — 11:30 H 0112
Spin-dependent Transport Phenomena I

MA 40 10:00 — 12:30 ER 164
Spintronics: Mobile electrons and holes (HL with MA/TT)

MA 41 09:30 — 12:30 H 1012
Focus: All-optical magnetic switching

MA 42 09:30 — 12:00 EB 202
Topological Insulators I
(jointly with DS, HL, O, TT)

MA 43 09:30 — 12:00 EB 301
Magnetisation / Demagnetisation Dynamics III

MA 44 15:00 — 17:30 H 0110
Surface Magnetism (Joint Session with O) – Adatoms on surfaces

MA 45 15:00 — 18:00 H 0112
Spin-dependent Transport Phenomena II

MA 46 15:00 — 18:30 H 1012
Magnetic Thin Films I

MA 47 15:00 — 17:45 EB 202
Topological Insulators II
(jointly with DS, HL, O, TT)

MA 48 15:00 — 17:15 EB 301
Magnetisation / Demagnetisation Dynamics IV

MA 49 15:00 — 18:00 Poster A
POSTER II

MA 50 18:00 — 19:00 H 0110
Annual General Meeting of the Magnetism Division

Metal and Material Physics Division (MM)

Invited Talk, Topical Talks

MM 47.1 09:30 — 10:00 TC 006
Small experiments but great insights * Plasticity in brittle materials
•*Sandra Korte-Kerzel, Harshal Mathur, Sebastian Schröders*

MM 50.1 10:15 — 10:45 TC 006
Entwicklung von bioresorbierbaren Magnesiumimplantaten für individuelle Kontinuitätsdefekte in der MKG-Chirurgie
•*Ralf Smeets, Ole Jung, Henning Hanken, Max Heiland, Christoph Ptock, Max Schwade, Alexander Kopp, Philip Hartjen*

MM 50.3 11:00 — 11:30 TC 006
3D scaffolds as cell adhesion templates
•*Christine Selhuber-Unkel*

Sessions

MM 46 09:30 — 13:00 EB 407
Focused Session on GHz Dielectrics: Materials for Mobile Communication I (jointly with HL, MM, DY)

MM 47 09:30 — 10:00 TC 006
Invited talk Korte

MM 48 10:15 — 11:30 H 0106
Methods in Computational Materials Modelling VI: Algorithms

MM 49 10:15 — 11:45 H 0107
Interfaces I: Structure and Segregation

MM 50 10:15 — 11:45 TC 006
Biomaterials and Biological Materials III

MM 51 10:15 — 11:45 TC 010
Mechanical properties II

MM 52 11:45 — 13:15 H 0106
Nanomaterials III: Nanoporous Gold and Phase Transformations

MM 53 11:45 — 12:30 H 0107
Interfaces II: Deformation and Motion

MM 54 11:45 — 13:00 TC 006
Biomaterials and Biological Materials IV

MM 55 11:45 — 12:45 TC 010
Mechanical Properties III

MM 56 15:00 — 17:00 EB 407
Focused Session on GHz Dielectrics: Materials for Mobile Communication II (jointly with HL, MM, DY)

Surface Science Division (O)

Invited Talks, Topical Talks

O 76.1 09:30 — 10:15 HE 101
1D Metal Wires at Surfaces: Preparation, Phase Transitions, and Ultrafast non-Equilibrium Dynamics
•*Michael Horn-von Hoegen*

O 77.1 10:30 — 11:00 MA 005
Photoinduced phase transitions in vanadium dioxide revealed by ultrafast electron diffraction and broadband spectroscopy
•*Bradley Siwick, Vance Morrison, Robert Chatelain, Kunal Tiwari, Ali Hendaoui, Andrew Bruhacs, Mohamed Chaker*

O 77.2 11:00 — 11:30 MA 005
Spatial and temporal resolution studies on a highly compact ultrafast electron diffractometer and lattice dynamics in few-layer graphene
Christian Gerbig, Arne Senftleben, Silvio Morgenstern, Marlene Adrian, Cristian Sarpe, •*Thomas Baumert*

O 78.1 10:30 — 11:00 MA 004
Interaction and Correlation Effects in Quasi Two-dimensional Materials
•*Steven G. Louie*

O 79.5 11:30 — 12:00 HE 101
Spin Excitations and Correlations in Individual Molecules on Surfaces
•*Markus Ternes*

O 84.1 15:00 — 15:30 MA 005
Femtosecond electron probes for the investigation of structural dynamics and ultrafast currents in nanomaterials
•*Ralph Ernstorfer, Melanie Müller, Lutz Waldecker, Roman Bertoni, Thomas Vasileiadis, Alexander Paarmann*

O 84.6 16:30 — 17:00 MA 005
Exploring the Spatial and Temporal Resolution Limits of Ultrafast Electron Microscopy
•*David J. Flannigan, Dayne A. Plemmons, Daniel R. Cremons, David T. Valley*

O 84.8 17:15 — 17:45 MA 005
Ultrafast single-electron diffraction and its perspectives
•*Peter Baum*

O 85.1 15:00 — 15:30 MA 004
Natural orbital functional theory with higher-order occupation probabilities
•*Ralph Gebauer, Roberto Car, Morrel Cohen*

O 86.1 15:00 — 15:30 HE 101
On-surface synthesis of molecular and polymeric nanostructures
•*J. Michael Gottfried*

Sessions

O 76 09:30 — 10:15 HE 101
Overview Talk (Michael Horn-von Hoegen)

O 77 10:30 — 13:15 MA 005
Focus Session: Structural Dynamics in Nanoscale Materials Probed by Ultrashort Electron Pulses

O 78 10:30 — 13:15 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale V

O 79 10:30 — 13:00 HE 101
Scanning Probe Techniques: STM

O 80 10:30 — 13:00 MA 041
Graphene: Structure

O 81 10:30 — 13:00 MA 042
Gerhard Ertl Young Investigator Award

O 82 10:30 — 13:30 MA 043
Nanostructure at Surfaces: Dots and Clusters

O 83 10:30 — 13:30 MA 144
Surface Chemistry and Growth

O 84 15:00 — 18:15 MA 005
Focus Session: Structural Dynamics in Nanoscale Materials Probed by Ultrashort Electron Pulses

O 85 15:00 — 18:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale VI

O 86 15:00 — 17:45 HE 101
Nanostructure at Surfaces: Molecular Assembly

O 87 15:00 — 18:15 MA 041
Graphene: Electronic Structure

O 88 15:00 — 18:15 MA 042
Electronic Structure: Surface Magnetism and Spin Phenomena

O 89 15:00 — 18:30 MA 043
Inorganic/Organic Interfaces: Molecular Switches

O 90 15:00 — 18:30 MA 144
Sensing, Active Structures and other Applications

O 91 19:00 — 19:30 HE 101
Annual General Meeting of the Surface Science Division

O 92 19:30 — 20:30 HE 101
Post-Deadline Session

Physics of Socio-economic Systems Division (SOE)

Topical Talk

SOE 23.1 17:00 — 17:30 MA 001
Critical Transitions in Socio-econo-ecological Systems – A Global Adaptive Model of the Regional Transitions to Agriculture 8000 BC to AD 500
•*Carsten Lemmen, Kai W. Wirtz*

Sessions

SOE 17 09:30 — 11:15 MA 001
Social Systems, Opinion and Group Dynamics

SOE 18 11:15 — 12:00 MA 001
Social Networks

SOE 19 12:00 — 13:15 MA 001
Networks: From Topology to Dynamics II
(joint session SOE / DY / BP)

SOE 20 09:30 — 12:45 BH-N 243
Energy Systems
(joint session DY/AK Energy/SOE)

SOE 21 14:00 — 14:45 H 0104
Plenary Talk Simon Levin

SOE 22 15:00 — 17:00 MA 001
Economic Models

SOE 23 17:00 — 18:30 MA 001
Physics of Sustainability and Human-Nature Interactions II (joint with DY, jDPG, BP) – session accompanying the symposium SYPS

SOE 24 15:00 — 17:00 BH-N 243
Extreme Events (joint session DY / SOE)

Low Temperature Physics Division (TT)

Invited Talks, Topical Talks

TT 84.1 09:30 — 10:00 H 0104
Creating and Manipulating Nonequilibrium Spins in Nanoscale Superconductors
Michael J. Wolf, Florian Hübler, Stefan Kolenda, Christoph Sürgers, Gerda Fischer, Hilbert von Löhneysen, •Detlef Beckmann

TT 84.2 10:00 — 10:30 H 0104
Non-Equilibrium Effects in a Josephson Junction Coupled to a Precessing Spin
•*Mikael Fogelström*

TT 84.3 10:30 — 11:00 H 0104
Signature of Magnetic-Dependent Gapless Odd Frequency States at Superconductor / Ferromagnet Interfaces
•*Jason Robinson*

TT 84.4 11:15 — 11:45 H 0104
Thermoelectric Effects and Spin Injection into Superconductors with Exchange Field
•*Tero Heikkilä, Mihail Silaev, Pauli Virtanen, Francesco Giazotto, Asier Ozaeta, Sebastian Bergeret*

TT 84.5 11:45 — 12:15 H 0104
Spin Injection and Relaxation in a Mesoscopic Superconductor
•*Marco Aprili, Charis Quay, Denis Chevalier, Clement Dutreix, Cristina Bena, Christoph Strunk*

TT 85.1 09:30 — 10:00 H 2053
A Brisk Walk through Phase Transitions in Time: Oscillating Order and the Dynamics of Topological Defects
•*Dragan Mihailovic*

TT 98.1 15:00 — 15:30 H 0104
Scanning Tunneling Spectroscopy: a New Tool for Probing Heavy Fermion Materials
•*Piers Coleman*

TT 98.2 15:30 — 16:00 H 0104
The Single-Atom Kondo Effect as a Local Probe for Magnetic Interactions
•*Jörg Kröger*

TT 98.3 16:00 — 16:30 H 0104
Correlated Electrons under the Microscope: from Atomic Scale Model Systems to Bulk Materials
•*Peter Wahl*

TT 98.4 16:45 — 17:15 H 0104
Developing Kondo Lattice Coherence and Quantum Criticality in $YbRh_2Si_2$
•*Steffen Wirth, Silvia Seiro, Stefan Kirchner, Cornelius Krellner, Christoph Geibel, Qimiao Si, Frank Steglich*

TT 98.5 17:15 — 17:45 H 0104
Visualizing the Formation and Magnetically-Mediated Cooper Pairing of Heavy Fermions
•*JC Seamus Davis*

TT 102.7 16:45 — 17:15 A 053
Microscopic Origin of the 0.7-Anomaly in Quantum Point Contacts: Correlations in 1D
Florin Bauer, Jan Heyder, Dawid Borowsky, D. Taubert, D. Schuh, B. Bruognolo, Werner Wegscheider, Jan von Delft, •*Stefan Ludwig*

Sessions

TT 84 09:30 — 13:15 H 0104
Focus Session: Nanoscopic Superconducting Heterostructures

TT 85 09:30 — 11:15 H 2053
Superconductivity: Higgs Modes in Condensed Matter and Quantum Gases (jointly with DY, MA, O)

TT 86 09:30 — 13:00 H 3005
Correlated Electrons: (General) Theory 2

TT 87 09:30 — 11:00 H 3010
Low-Dimensional Systems: Molecular Conductors (jointly with CPP, HL, MA, O)

TT 88 09:30 — 10:45 A 053
Transport: Carbon Nanotubes

TT 89 11:00 — 13:00 A 053
Transport: Quantum Dots, Quantum Wires, Point Contacts 1 (jointly with HL)

TT 90 11:30 — 13:00 H 3010
Low-Dimensional Systems: Topological Order 1 (jointly with DS, HL, MA, O)

TT 91 11:30 — 13:00 H 2053
Superconductivity: (General) Theory 1

TT 92 09:30 — 12:00 EB 202
Topological Insulators I
(jointly with MA, DS, HL, O)

TT 93 09:30 — 13:00 H 0111
Graphen (organised by DS)

TT 94 09:30 — 11:30 H 0112
Spin-Dependent Transport Phenomena I
(organised by MA)

TT 95 10:00 — 12:30 ER 164
Spintronics: Mobile Electrons and Holes
(jointly with HL, MA)

TT 96 10:30 — 13:15 MA 004
Frontiers of Electronic Structure Theory: 2D TMDC and Excitonic Effects (organised by O)

TT 97 10:30 — 13:00 MA 041
Graphene: Structure (jointly with O, HL)

TT 98 15:00 — 18:15 H 0104
Focus Session: Visualisation of Heavy Fermion Formation through Scanning Tunneling Microscopy

TT 99 15:00 — 18:00 H 2053
Superconductivity: (General) Theory 2

TT 100 15:00 — 18:30 H 3005
Correlated Electrons: Other Materials

TT 101 15:00 — 18:30 H 3010
Low-Dimensional Systems: Topological Order 2 (jointly with DS, HL, MA, O)

TT 102 15:00 — 18:30 A 053
Transport: Quantum Dots, Quantum Wires, Point Contacts 2 (jointly with HL)

TT 103 15:00 — 18:00 Poster B
Transport: Poster Session

TT 104 15:00 — 17:45 EB 202
Topological Insulators II (jointly with MA, DS, HL, O)

TT 105 15:00 — 17:00 ER 164
Quantum Information Systems: Si Vacancies and NV Centers (jointly with HL)

TT 106 15:00 — 18:30 MA 004
Frontiers of Electronic Structure Theory: Many-Body Effects, Methods (organised by O)

TT 107 15:00 — 18:15 MA 041
Graphene: Electronic Structure (jointly with O, HL)

TT 108 15:00 — 18:00 H 0112
Spin-Dependent Transport Phenomena II (organised by MA)

18:45 — 20:00 H 3005
Annual General Meeting of the Low Temperature Physics Division

Gravitation and Relativity Division (GR)

Invited Talks

GR 14.1 09:30 — 10:10 H 2013
General Relativity and Astrometry
•*Sergei Klioner*

GR 14.2 10:10 — 10:50 H 2013
Where is the energy stored in the gravitational field?
•*Gerhard Schäfer*

Sessions

GR 14 09:30 — 10:50 H 2013
Invited Talks 6

GR 15 11:10 — 12:50 H 2013
Fundamental Problems and General Formalism

GR 16 15:00 — 18:10 H 2013
Numerical Relativity

18:30 — 19:30 H 2013
Annual General Meeting of the Gravitation and Relativity Division

Theoretical and Mathematical Physics Division (MP)

Invited Talk

MP 15.1 10:35 — 11:15 HFT-FT 101
Applications of local gauge covariance: Anomalies and QED in external potentials
•*Jochen Zahn*

Sessions

MP 14 09:30 — 10:30 HFT-FT 101
Mathematische und Philosophische Grundlagen (gemeinsam mit AG Phil)

MP 15 10:35 — 11:15 HFT-FT 101
HV Zahn

MP 16 11:20 — 12:20 HFT-FT 101
Gravitation

Working Group on Equal Opportunities (AKC)

Invited Talks

AKC 1.1 16:00 — 16:30 TA 251
Laborsituationen: Geschlechtermarkierungen in drei Wissenschaftskollektiven der Physikgeschichte
•*Elvira Scheich*

AKC 1.2 16:30 — 17:00 TA 251
Gender and Diversity in physical research institutions
•*Martina Erlemann*

AKC 1.3 17:00 — 17:30 TA 251
Der Diskurs zu Diversität im Kontext von Schule und naturwissenschaftlicher Bildung
•*Tanja Tajmel*

AKC 1.4 17:30 — 18:00 TA 251
Fachkultur der Physik im Wandel?! – Perspektiven der Gender und Diversity Studies
•*Petra Lucht*

Session

AKC 1 16:00 — 18:00 TA 251
Diversity at Work
20:00 Restaurant „Schweinske“, E.-R.-Platz, Berlin
Vernetzungstreffen für Physikerinnen

Working Group on Energy (AKE)

Session

AKE 15 09:30 — 12:45 BH-N 243
Energy Systems (joint session DY/AKE/SOE)

Working Group on Physics and Disarmament (AGA)

Invited Talks

AGA 9.1 09:30 — 10:30 EMH 225
Nuclear disarmament – technical means for verification
•*Wolfgang Rosenstock*

AGA 10.1 11:00 — 12:00 EMH 225
Fissile Materials and Nuclear Disarmament: A Bottom-up / Top-Down Approach
•*Thomas Shea*

AGA 12.1 15:00 — 16:00 EMH 225
Ten year anniversary: U.S. Strategic Missile Defense at a Crossroads
•*Laura Grego*

AGA 12.2 16:00 — 17:00 EMH 225
Ausgewählte Berechnungen zur Raketenabwehr mit dem Computersimulationsmodell RAAB
•*Peter Sequard-Base*

Sessions

AGA 9 09:30 — 11:00 EMH 225
Verification

AGA 10 11:00 — 12:00 EMH 225
Nuclear Disarmament

AGA 11 12:00 — 12:30 EMH 225
Drones and Autonomous Systems

AGA 12 15:00 — 17:00 EMH 225
Missile Defense

AGA 13 17:00 — 18:00 EMH 225
Warhead Dismantlement and Verification Technologies

18:00 — 19:00 EMH 225
Annual General Meeting of the Working Group on Physics and Disarmament

Working Group „Young DPG“ (AGjDPG)

Invited Talk

AGjDPG 7.1 09:30 — 10:30 HFT-FT 131
Über das Schreiben von wissenschaftlichen Arbeiten
•*Ingolf Volker Hertel*

Session

AGjDPG 7 09:30 — 10:30 HFT-FT 131
Scientific Writing

Working Group on Philosophy of Physics (AGPhil)

Invited Talk

AGPhil 7.1 10:45 — 11:30 A 060
A Defence of the Geometrical Interpretation of General Relativity
•*Oliver Pooley*

Sessions

AGPhil 6 09:30 — 10:30 HFT-FT 101
Mathematische und Philosophische Grundlagen

AGPhil 7 10:45 — 12:45 A 060
The role of geometry in gravitational theories

AGPhil 8 15:00 — 17:30 H 0105
Geometric paradigms in modern physics

19:15 — 20:00 A 060
Annual General Meeting of the Working Group on Philosophy of Physics

Public Evening Talk – Lise Meitner Lecture (Entrance free)

PV XXVII 18:00 H 0105
Material in neuem Licht – wie maßgeschneidertes Licht Materie strukturieren und anordnen kann
•*Cornelia Denz*

„Role model"-Exhibition

09:00 — 19:00 Main Building

Job Market

13:15 — 14:15 PC 203
The Boston Consulting Group GmbH

14:30 — 15:30 PC 203
Siemens Management Consulting

Exhibition of Scientific Instruments and Literature

09:00 — 17:00 Lichthof, Foyer EG, EG rechts, 1. OG, Tents

Friday, March 20, 2015

Plenary Talk

PV XXVIII 08:30 — 09:15 H 0105
Nanocrystalline Junctions and Mesoscopic Solar Cells
•*Michael Graetzel*

Symposium Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-Scale (SYME)

Invited Talks

SYME 1.1 09:30 — 10:00 H 0105
Excitations and charge transfer phenomena in C based systems
•*Elisa Molinari*

SYME 1.2 10:00 — 10:30 H 0105
Towards optimal correlation factors for many-electron perturbation theories
•*Andreas Grüneis*

SYME 1.3 10:30 — 11:00 H 0105
Towards an ab-initio description of high temperature superconductivity
•*Garnet Chan*

SYME 1.4 11:15 — 11:45 H 0105
Correlation effects in unconventional superconductors: from micro- to nano- and macroscales.
•*Roser Valenti*

SYME 1.5 11:45 — 12:15 H 0105
Stochastic density functional and GW theories scaling linearly with system size
•*Roi Baer, Daniel Neuhauser, Eran Rabani*

Session

SYME 1 09:30 — 12:15 H 0105
Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-scale

Biological Physics Division (BP)

Invited Talk

BP 52.1 09:30 — 10:00 H 1028
Biophysics of light-activated ion transporters
Arend Vogt, Jonas Wietek, •Peter Hegemann

Sessions

BP 52 09:30 — 11:45 H 1028
Protein structure and dynamics II

BP 53 09:30 — 12:15 H 1058
Complex Fluids and Soft Matter
(joint BP/DY/CPP)

BP 54 09:30 — 11:30 C 264
Microswimmers, Active Liquids III
(joint DY/BP/CPP)

BP 55 09:30 — 12:45 BH-N 128
Networks: From Topology to Dynamics II
(joint DY/BP/SOE)

BP 56 09:30 — 12:00 BH-N 334
Aging in Physical and Biological Systems
(focus session, joint DY/BP)

Chemical and Polymer Physics Division (CPP)

Invited Talks

CPP 76.1 09:30 — 10:00 C 130
Strong and switchable magnetic couplings in molecular semiconductor films
•Michele Serri, Wei Wu, Luke Fleet, Cyrus Hirjibehedin, Nicholas Harrison, Chris Kay, Andrew Fisher, Gabriel Aeppli, Sandrine Heutz

CPP 76.7 11:30 — 12:00 C 130
Excitonic phenomena in molecular semiconductors
•Jens Pflaum

CPP 79.1 09:30 — 10:00 C 264
From chemical nanomotors to biological microswimmers
•Peer Fischer

Sessions

CPP 76 09:30 — 12:00 C 130
Organic Electronics and Photovoltaics: Devices (joint session CPP, HL, TT)

CPP 77 09:30 — 11:30 BH-N 243
Special Session in Honor of the 75th Birthday of Siegfried Hess: Non-equilibrium dynamics of anisotropic fluids (Joint session DY, CPP)

CPP 78 09:30 — 11:15 C 243
Glasses and Glass Transition
(joint session CPP, DF, DY)

CPP 79 09:30 — 11:30 C 264
Microswimmers, Active Liquids II
(joint session CPP, BP, DY)

CPP 80 09:30 — 12:15 H 0110
Transport: Molecular Electronics (joint session with TT, CPP, HL, MA, O)

Dielectric Solids Division (DF)

Session

DF 19 09:30 — 11:15 C 243
Glasses and Glass Transition II
(CPP with DF/DY)

Thin Films Division (DS)

Invited Talk

DS 40.1 09:30 — 10:00 H 2032
From 2D to 1D: Honeycomb crystals and their nanoribbons
•*Friedhelm Bechstedt*

Sessions

DS 40 09:30 — 13:15 H 2032
Metallic nanowires on the atomic scale
(joint session with O)

DS 41 10:30 — 12:45 MA 042
Semiconductor substrates: structure, epitaxy and growth (joint session with O)

Dynamics and Statistical Physics Division (DY)

Invited Talks

DY 65.1 09:30 — 10:00 BH-N 243
The „shear-gradient concentration coupling instability“: non-uniform flow of sheared hard-sphere glasses.
•*Jan K.G. Dhont*

DY 65.2 10:00 — 10:30 BH-N 243
Active anisotropic fluids
•*Sriram Ramaswamy*

DY 65.3 10:30 — 11:00 BH-N 243
Flow properties of anisotropic fluids
•*Sebastian Heidenreich, Sabine H. L. Klapp, Markus Bär*

DY 65.4 11:00 — 11:30 BH-N 243
Concluding Remarks
•*Siegfried Hess*

DY 66.1 09:30 — 10:00 BH-N 334
Demographic perspectives on the evolution of senescence
•*Annette Baudisch*

DY 66.2 10:00 — 10:30 BH-N 334
Biological mechanisms of aging
•*Björn Schumacher*

DY 66.3 10:30 — 11:00 BH-N 334
Aging in out-of-equilibrium systems: an overview
•*Jean-Philippe Bouchaud*

DY 66.4 11:00 — 11:30 BH-N 334
Aging in coarsening systems with non-algebraic growth laws
•*Michel Pleimling*

Sessions

DY 65 09:30 — 11:30 BH-N 243
Special Session in Honor of the 75th Birthday of Siegfried Hess: Non-equilibrium dynamics of anisotropic fluids

DY 66 09:30 — 12:00 BH-N 334
Focus Session: Aging in Physical and Biological Systems (joint session DY/ BP)

DY 67 09:30 — 12:45 BH-N 128
Networks: From Topology to Dynamics (joint session DY/ BP/SOE)

DY 68 09:30 — 11:15 C 243
Glasses and Glass Transition (joint session CPP/ DF/ DY)

DY 69 09:30 — 12:15 H 1058
Complex Fluids and Soft Matter (joint session BP/DY/CPP)

DY 70 09:30 — 11:30 C 264
Microswimmers, Active Liquids – Part III (joint session CPP/ BP/ DY)

Semiconductor Physics Division (HL)

Invited Talk

HL 99.1 09:30 — 10:00 EW 202
Fractional quantum Hall effect states in ultrahigh mobility two-dimensional electron systems
•*Werner Wegscheider, Christian Reichl, Jun Chen, Werner Dietsche, Stephan Baer, Lars Tiemann, Szymon Hennel, Clemens Rössler, Thomas Ihn, Klaus Ensslin*

Sessions

HL 97 09:30 — 11:00 ER 164
Quantum dots and wires: Pillars and cavities

HL 98 09:30 — 12:30 EW 201
Nitrides: Bulk material, films, surfaces and quantum wells

HL 99 09:30 — 10:00 EW 202
Invited Talk Werner Wegscheider

HL 100 09:30 — 12:15 EW 203
ZnO and its relatives

HL 101 09:30 — 12:15 H 0105
Frontiers of electronic structure theory: Many-body effects on the nano-scale

HL 102 09:30 — 12:00 C 130
Organic electronics and photovoltaics: Devices (CPP with HL/TT)

HL 103 09:30 — 12:00 EB 202
Spintronics incl. quantum dynamics (MA with HL/TT)

HL 104 09:30 — 12:15 H 0110
Transport: Molecular electronics (TT with CPP/HL/MA/O)

HL 105 09:30 — 12:15 H 0104
Transport: Majorana fermions (TT with DS/HL/MA/O)

HL 106 10:00 — 13:00 EW 202
Transport, magnetotransport and quantum Hall physics

HL 107 10:15 — 13:00 EW 015
Microcavities, polaritons and condensates

HL 108 10:30 — 12:45 MA 041
Graphene: Intercalation (O with HL/TT)

HL 109 11:15 — 13:15 ER 164
Quantum dots and wires: Quantum communication and quantum information science

Magnetism Division (MA)

Invited Talk

MA 53.1 09:30 — 10:00 EB 202
Antiferromagnetic spintronics
•*Tomas Jungwirth*

Sessions

MA 51 09:30 — 12:30 H 0112
Magnetic Shape Memory Alloys
(Joint Session with MM)

MA 52 09:30 — 12:45 H 1012
Magnetic Thin Films II

MA 53 09:30 — 12:00 EB 202
Spintronics (incl. Quantum Dynamics)
(jointly with HL, TT)

MA 54 09:30 — 11:15 EB 301
Magnetic Coupling Phenomena

Metal and Material Physics Division (MM)

Session

MM 57 09:30 — 12:15 H 0105
Frontiers of Electronic Structure Theory:
Many-body Effects on the Nano-scale

Surface Science Division (O)

Invited Talks

O 93.1 09:30 — 10:15 HE 101
Ternary oxides: New surfaces structures and surprising interface properties
•*Wolf Widdra*

O 96.1 10:30 — 11:00 MA 004
Ultrafast electron dynamics at oxide surfaces: How metallic is a semiconductor?
•*Julia Stähler*

O 102.1 13:15 — 14:00 HE 101
Energiewende: Grenzgänge und Grenzflächen
•*Robert Schlögl*

Sessions

O 93 09:30 — 10:15 HE 101
Overview Talk (Wolf Widdra)

O 94 09:30 — 12:15 H 0105
Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-scale

O 95 09:30 — 13:15 H 2032
Metallic nanowires on the atomic scale (DS with O)

O 96 10:30 — 12:45 MA 004
Ultrafast Electron Dynamics at Surfaces and Interfaces

O 97 10:30 — 12:45 MA 005
Nanostructure at Surfaces: Structures and Properties

O 98 10:30 — 12:45 MA 041
Graphene: Intercalation

O 99 10:30 — 12:45 MA 042
Semiconductor Substrates: Structure, Epitaxy and Growth

O 100 10:30 — 13:00 MA 043
Metal Substrates: Adsorption and Reactivity

O 101 10:30 — 12:45 MA 144
Scanning Probe Techniques: AFM

O 102 13:15 — 14:00 HE 101
Overview Talk (Robert Schlögl)

Physics of Socio-economic Systems Division (SOE)

Session

SOE 25 09:30 — 12:45 BH-N 128
Networks: From Topology to Dynamics III (joint session DY / SOE / BP)

Low Temperature Physics Division (TT)

Sessions

TT 109 09:30 — 12:15 H 0104
Transport: Majorana Fermions (jointly with DS, HL, MA, O)

TT 110 09:30 — 12:15 H 2053
Superconductivity: Fe-based Superconductors – Theory

TT 111 09:30 — 12:15 H 3005
Correlated Electrons: Quantum Impurities, Kondo Physics

TT 112 09:30 — 12:00 H 3010
Correlated Electrons: (General) Theory 3

TT 113 09:30 — 12:00 C 130
Organic Electronics and Photovoltaics: Devices (jointly with CPP, HL)

TT 114 09:30 — 12:15 H 0110
Transport: Molecular Electronics (jointly with CPP, HL, MA, O)

TT 115 09:30 — 13:15 H 2032
Metallic Nanowires on the Atomic Scale (jointly with DS, O)

TT 116 09:30 — 12:00 EB 202
Spintronics (incl. Quantum Dynamics) (jointly with MA, HL)

TT 117 10:30 — 12:45 MA 041
Graphene: Intercalation (jointly with O, HL)

Gravitation and Relativity Division (GR)

Invited Talks

GR 17.1 09:30 — 10:10 H 2013
The Galactic Center Massive Black Hole
•*Reinhard Genzel*

GR 17.2 10:10 — 10:50 H 2013
Gravitational lensing – a versatile tool for astrophysics
•*Peter Schneider*

Sessions

GR 17 09:30 — 10:50 H 2013
Invited Talks 7

GR 18 11:10 — 13:10 H 2013
Black Holes

Working Group on Physics and Disarmament (AGA)

Sessions

AGA 14 10:00 — 10:30 EMH 225
Reactor Depletion and Transmutation

AGA 15 10:30 — 12:00 EMH 225
Safeguards Analysis and Verification

Working Group on Philosophy of Physics (AGPhil)

Invited Talks

AGPhil 9.1 09:30 — 10:15 A 060
On the seemingly double appearance of the signature in general relativity
•*Harvey Brown*

AGPhil 9.2 10:15 — 11:00 A 060
The status of Kottler's premetric program in Newtonian gravity and in electrodynamics: an essay
•*Friedrich W. Hehl, Yakov Itin, Yuri N. Obukhov*

AGPhil 11.1 14:00 — 14:45 A 060
A virtuous theorist's theoretical virtues: Einstein on physics vs. math and experience vs. unification
•*Jeroen van Dongen*

AGPhil 12.1 15:30 — 16:15 A 060
The Hole Argument and the Problem of Time
•*Karim Thebault*

Sessions

AGPhil 9 09:30 — 11:00 A 060
The role of the metric investigated

AGPhil 10 11:15 — 12:45 A 060
The role of the present in spacetime theories

AGPhil 11 14:00 — 15:15 A 060
Extending General Relativity

AGPhil 12 15:30 — 16:45 A 060
The Problem of Time

„Role model“-Exhibition

09:00 — 17:00 Main Building

Index of Exhibitors

Locations: EG = Foyer Erdgeschoss
EGR = Foyer Erdgeschoss rechts
FOG = Foyer 1. OG
LH = Lichthof
A + B = Zelt A, Zelt B (Tent A, Tent B)

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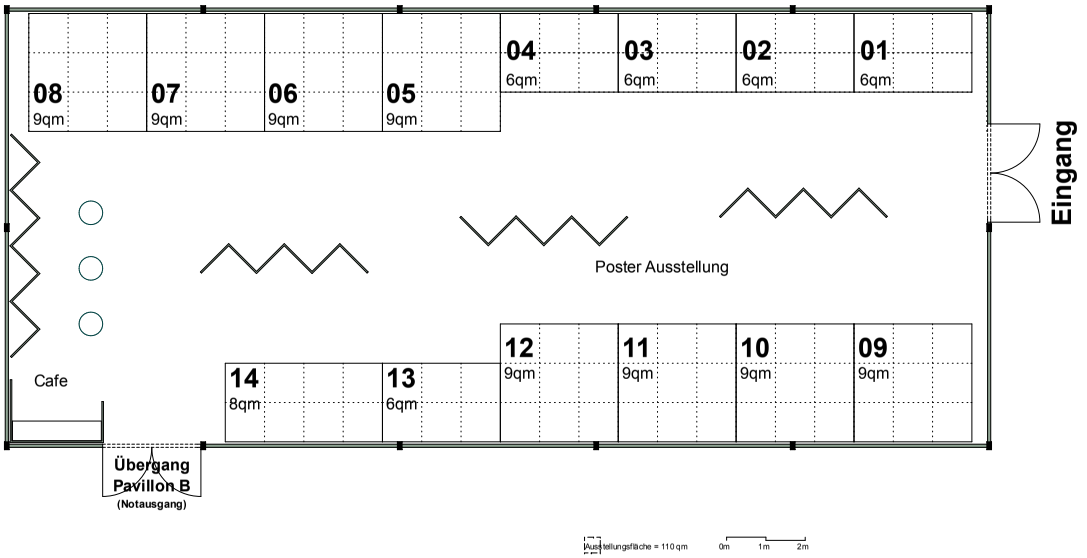
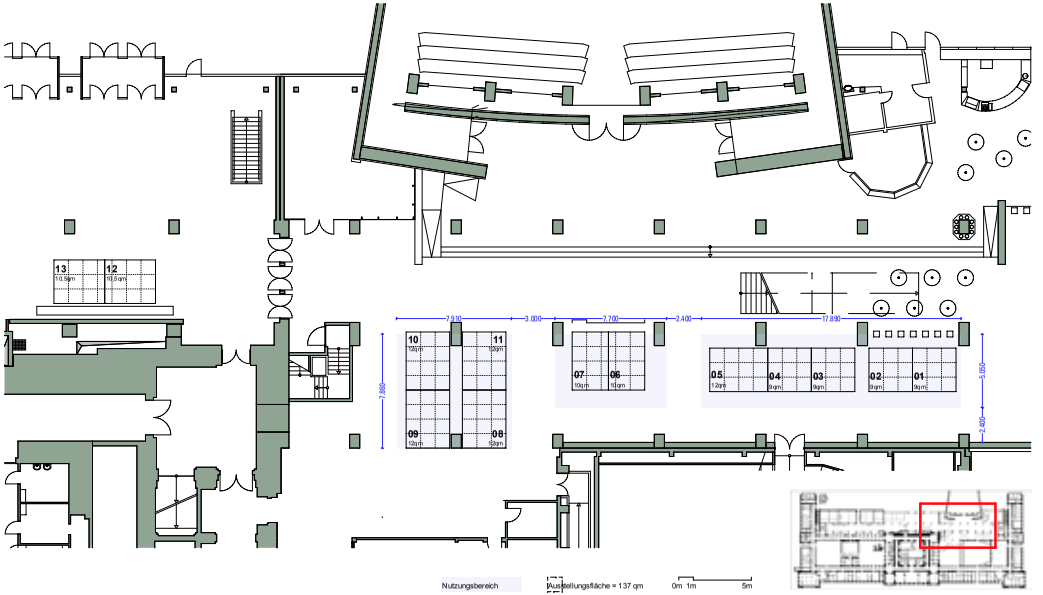

08
9qm
07
9qm
06
9qm
05
9qm
04
6qm
03
6qm
02
6qm
01
6qm
Eingang
Poster Ausstellung
Cafe
14
8qm
13
6qm
12
9qm
11
9qm
10
9qm
09
9qm
Übergang
Pavillon B
(Notausgang)
Ausstellungsfläche = 110 qm
0m
1m
2m


13
12
10
11
09
08
07
06
05
04
03
02
01
Nutzungsbereich
Ausstellungsfläche = 137 qm
0m 1m
5m

Exhibition

6.000 l. L. PRÜFEN
21.130
15.330
Nutzungsbereich
Ausstellungsfläche = 114 qm
0m 1m 5m
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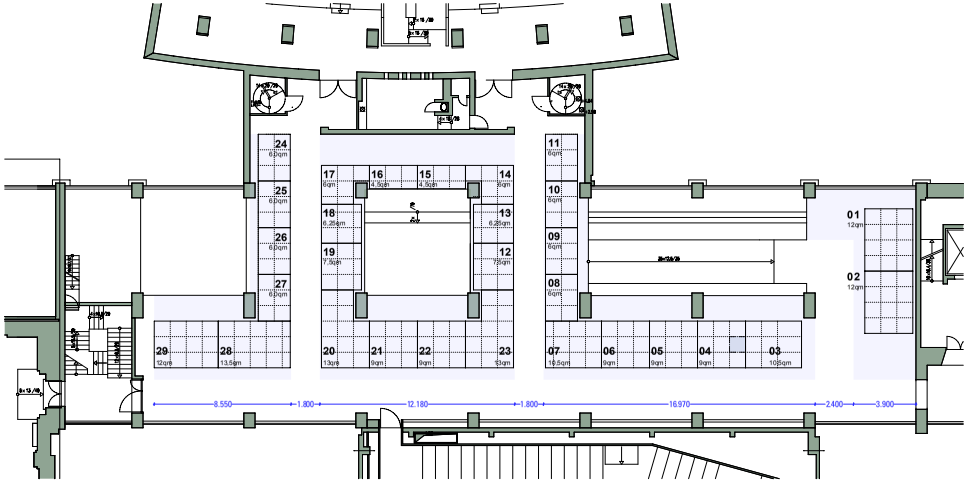
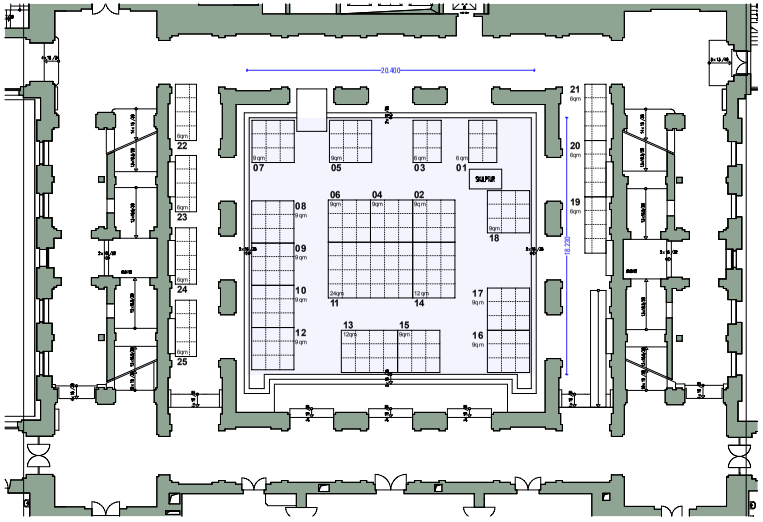
Hauptgebäude EG rechts
29. September 2014 | A-DES GmbH_st.
DPG
79. Jahrestagung der DPG und DPG-Frühjahrstagung
Berlin, 15. - 20. März 2015

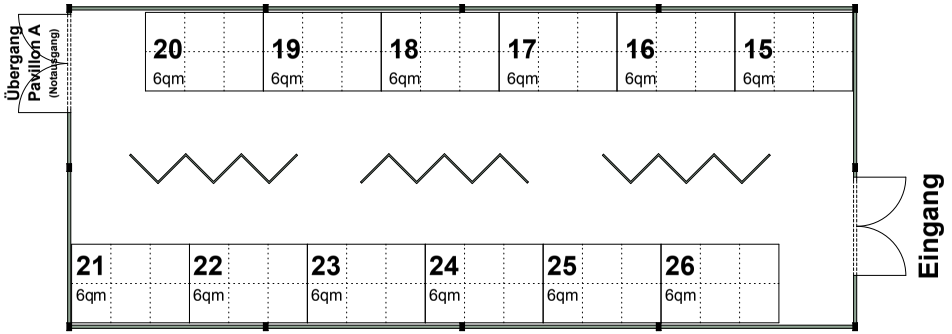


Nutzungsbereich

Ausstellungsfläche = 238 qm

0m 1m 5m


20.400
10.220
07
05
03
01
SUPER
06
04
02
08
09
10
12
11
14
13
15
18
17
16
21
20
19
22
23
24
25
Nutzungsbereich
Ausstellungsfläche = 219 qm
0m 1m
5m


Übergang
Pavillon A
(Notausgang)
20
6qm
19
6qm
18
6qm
17
6qm
16
6qm
15
6qm
21
6qm
22
6qm
23
6qm
24
6qm
25
6qm
26
6qm
Eingang
Nutzungsbereich
Ausstellungsfläche = 72 qm
0m
1m
2m

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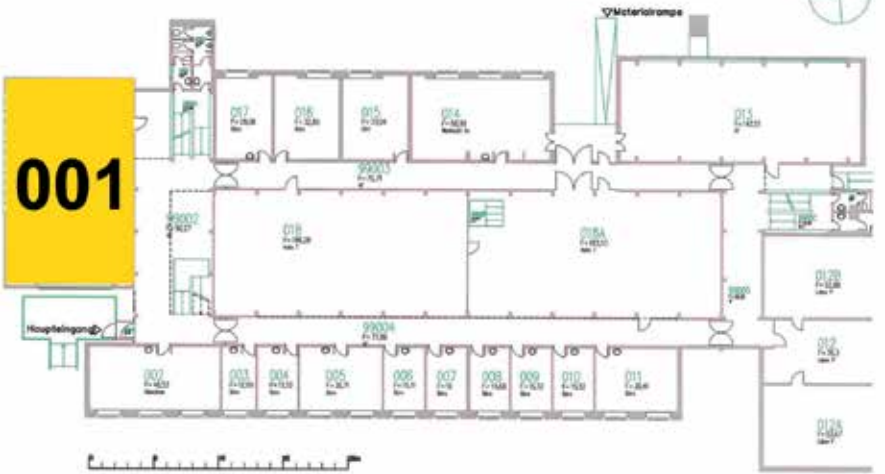
Heizung und Lüftung - HL (EG)



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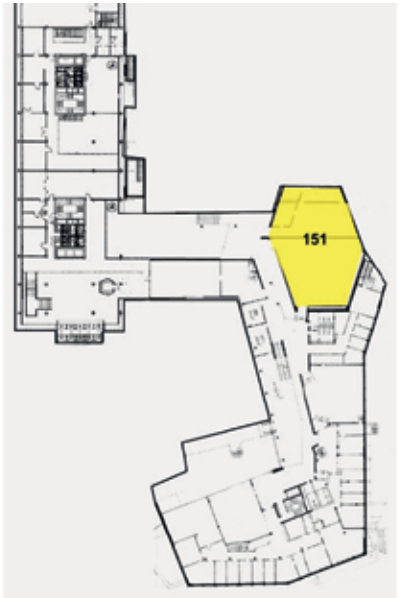
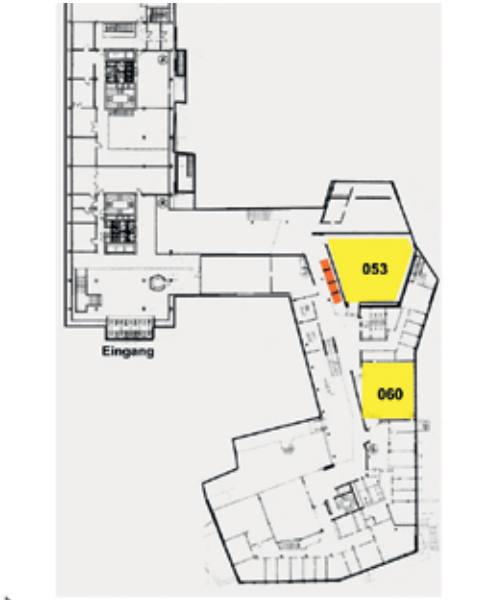
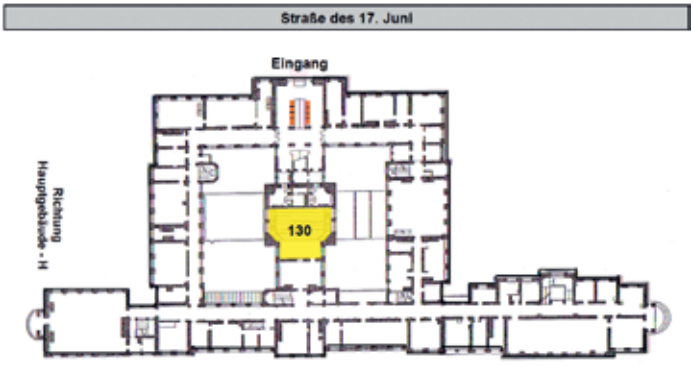

151
Technische Universität
Architekturgebäude - A (1. OG)
Ernst-Reuter-Platz
Straße des 17. Juni


053
Eingang
060
Technische Universität
Architekturgebäude - A (EG)
Ernst-Reuter-Platz
Straße des 17. Juni

Technische Universität
Bergbau und Hüttenwesen - BH-N (3. OG)
334
333
Hardenbergstraße
Ernst-Reuter-
Platz

Technische Universität
Bergbau und Hüttenwesen - BH-N (2. OG)
243
Hardenbergstraße
Ernst-Reuter-
Platz

Technische Universität
Bergbau und Hüttenwesen - BH-N (1. OG)



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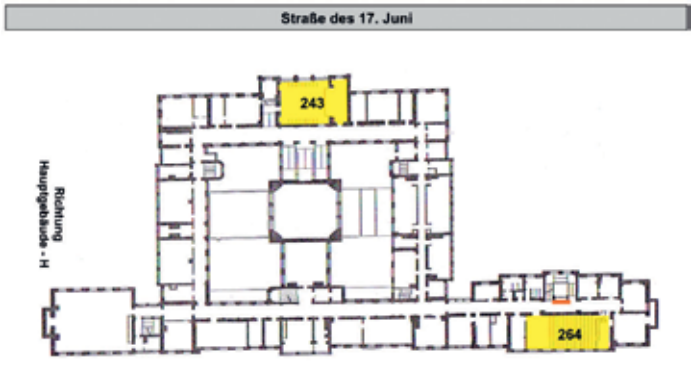
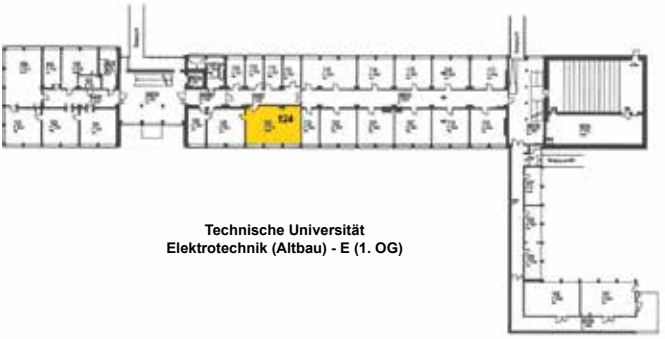
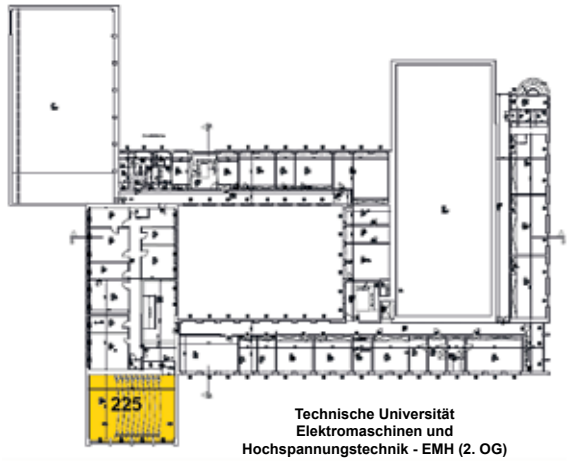
Chemiegebäude - C (1. OG)



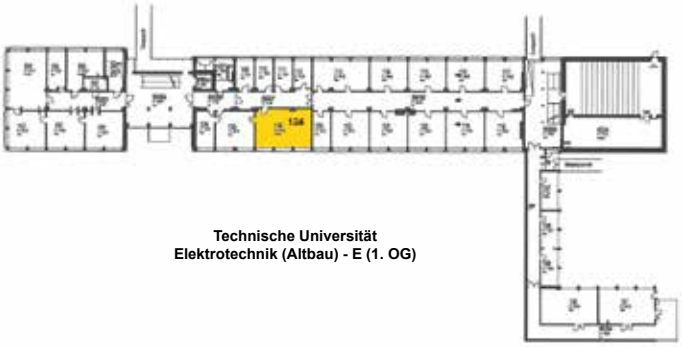
Technische Universität
Chemiegebäude - C (2. OG)



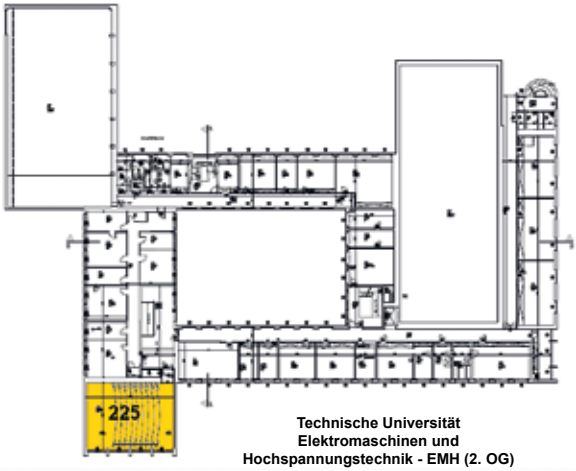
Technische Universität
Elektrotechnik (Altbau) - E (1. OG)



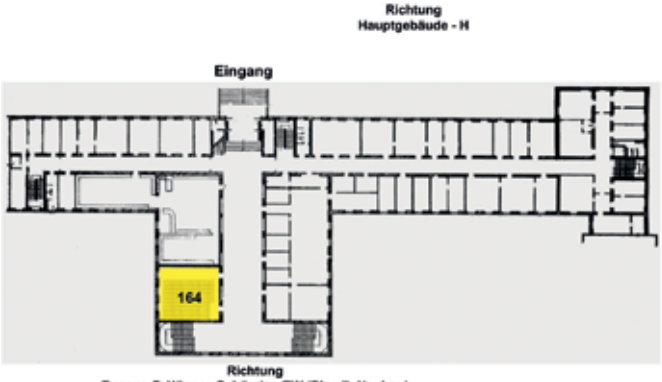
Technische Universität
Elektromaschinen und
Hochspannungstechnik - EMH (2. OG)



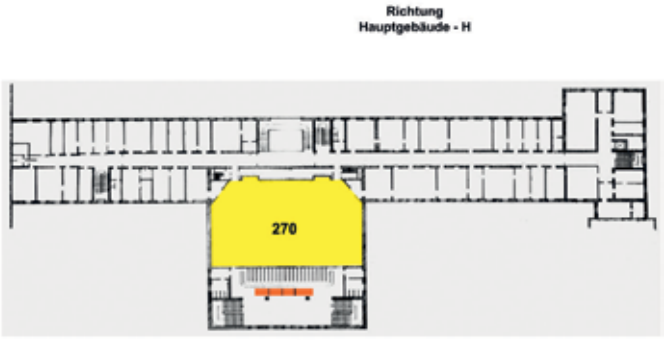
Technische Universität
Elektrotechnik (Altbau) - E (1. OG)



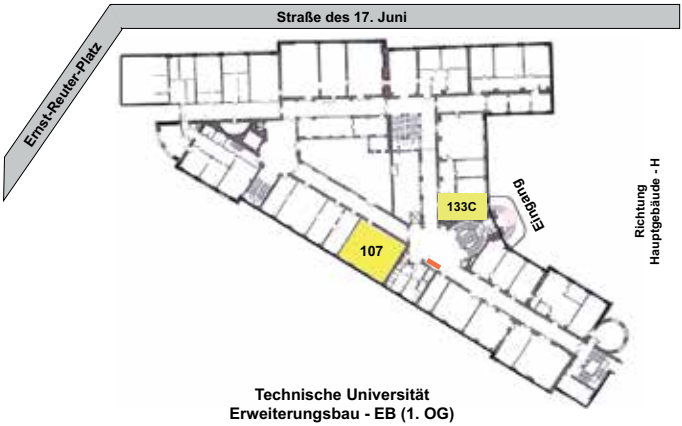
Technische Universität
Elektromaschinen und
Hochspannungstechnik - EMH (2. OG)



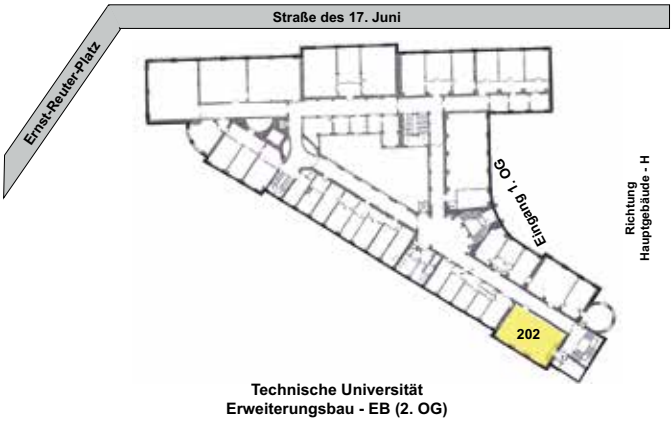
Technische Universität
Ernst-Ruska-Gebäude - ER (Physik) (1. OG)



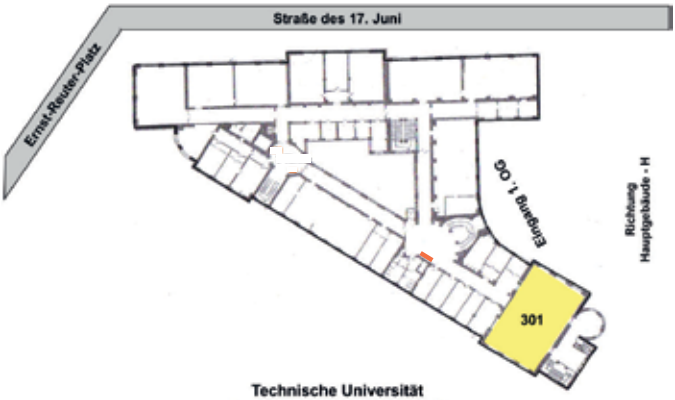
Technische Universität
Ernst-Ruska-Gebäude - ER (Physik) (2. OG)



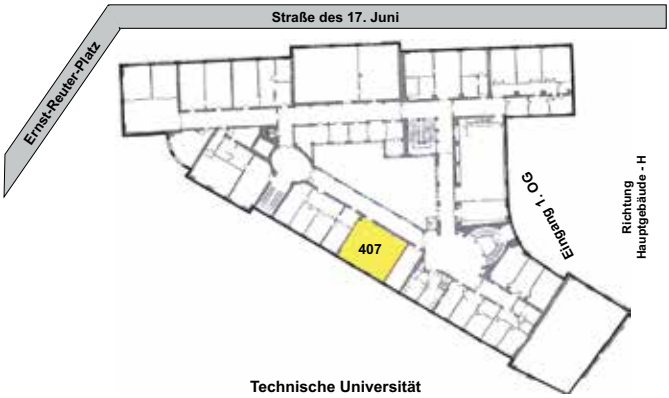
Technische Universität
Erweiterungsbau - EB (1. OG)



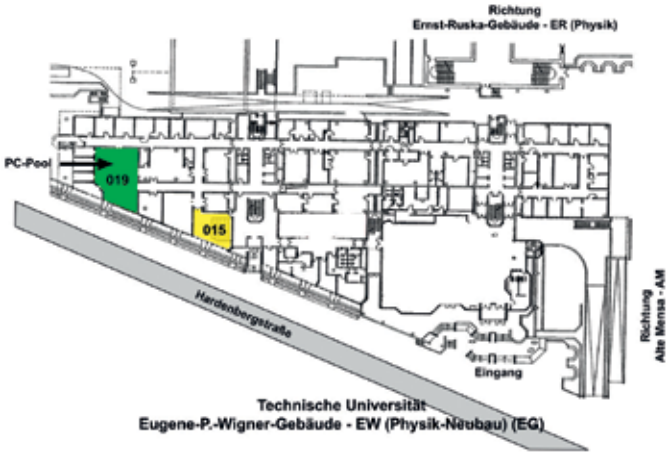
Technische Universität
Erweiterungsbau - EB (2. OG)



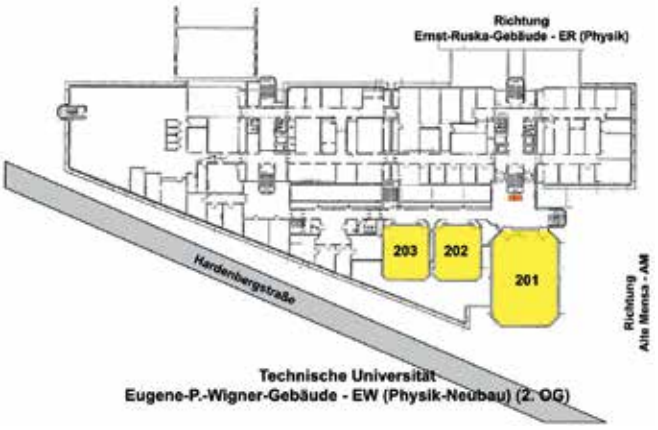
Technische Universität
Erweiterungsbau - EB (3. OG)



Technische Universität
Erweiterungsbau - EB (4. OG)



Technische Universität
Eugene-P.-Wigner-Gebäude - EW (Physik-Neubau) (EG)



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Eugene-P.-Wigner-Gebäude - EW (Physik-Neubau) (2. OG)

Straße des 17. Juni

Technische Universität
Hauptgebäude - H (EG)

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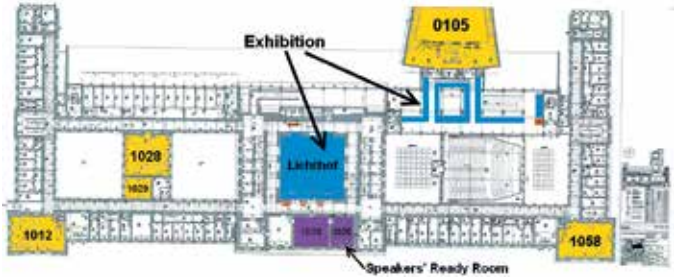
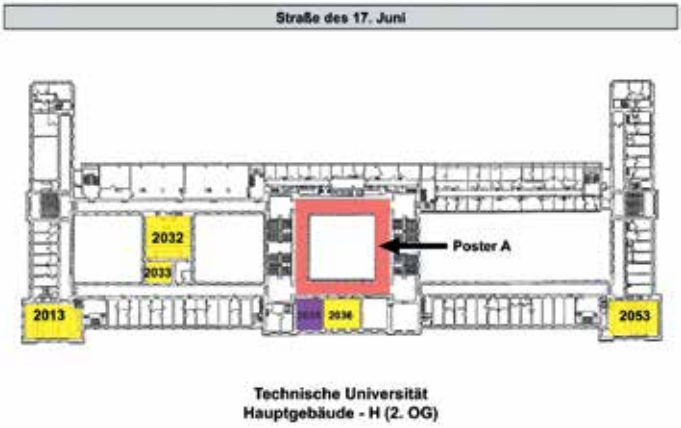
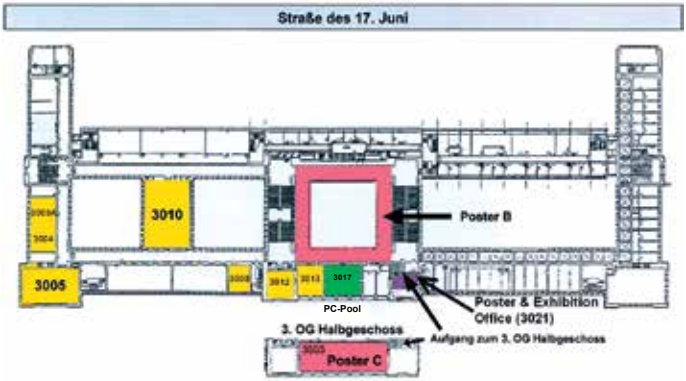


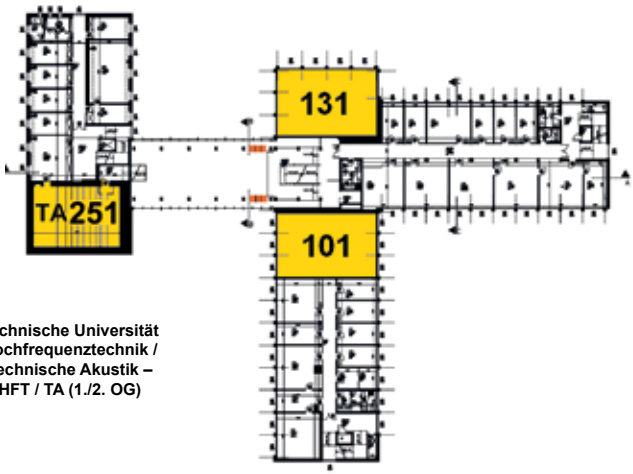
Technische Universität
Hauptgebäude - H (1. OG)



Technische Universität
Hauptgebäude - H (2. OG)



Technische Universität
Hauptgebäude - H (3. OG)



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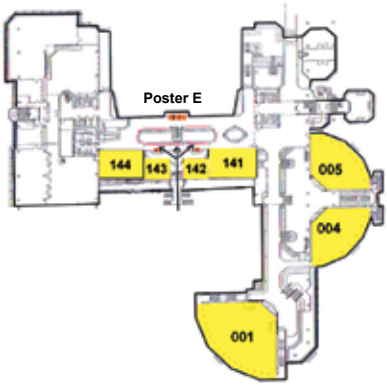
Mathematikgebäude - MA (EG)

Straße des 17. Juni



Technische Universität
Mathematikgebäude - MA (1. OG)

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Technische Universität
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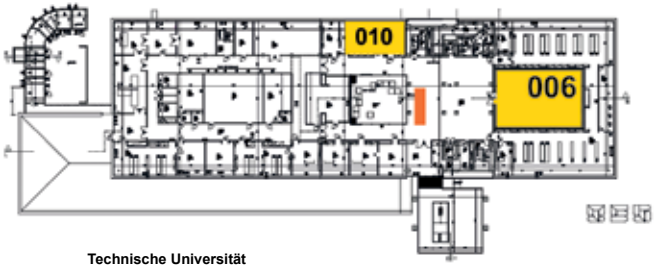
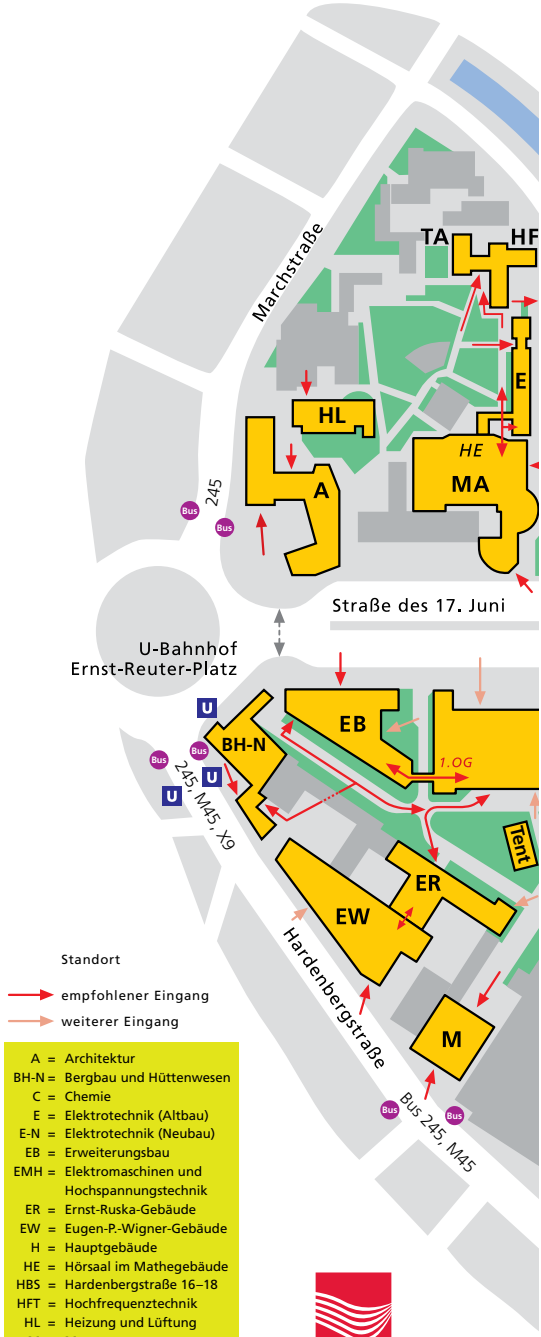


Technische Universität
Technische Chemie - TC (EG)

Eingang

Straße des 17. Juni



A	=	Architektur
BH-N	=	Bergbau und Hüttenwesen
C	=	Chemie
E	=	Elektrotechnik (Altbau)
E-N	=	Elektrotechnik (Neubau)
EB	=	Erweiterungsbau
EMH	=	Elektromaschinen und Hochspannungstechnik
ER	=	Ernst-Ruska-Gebäude
EW	=	Eugen-P.-Wigner-Gebäude
H	=	Hauptgebäude
HE	=	Hörsaal im Mathegebäude
HBS	=	Hardenbergstraße 16–18
HFT	=	Hochfrequenztechnik
HL	=	Heizung und Lüftung
M	=	Mensa
MA	=	Mathegebäude
PC	=	Physikalische Chemie
TA	=	Technische Akustik
TC	=	Technische Chemie
Tent	=	Zelte (Industrieausstellung)

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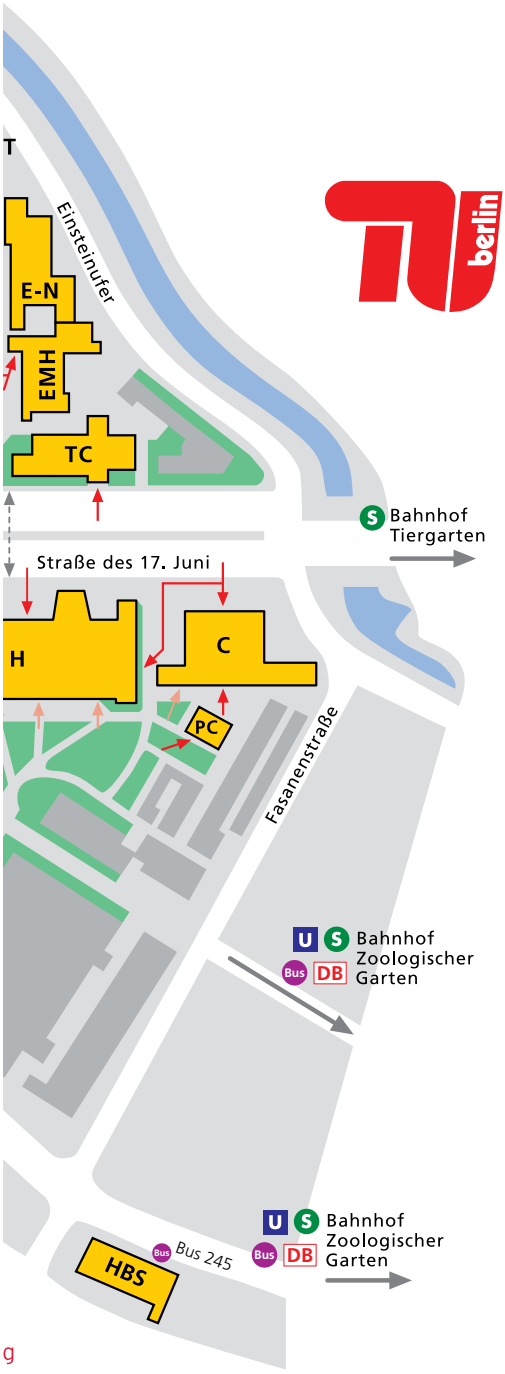
T
Einsteinufer
E-N
EMH
TC
S Bahnhof Tiergarten
Straße des 17. Juni
H
C
PC
Fasanenstraße
U S Bahnhof Zoologischer Garten
Bus DB
U S Bahnhof Zoologischer Garten
Bus DB
Bus 245
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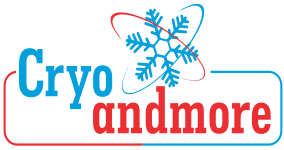


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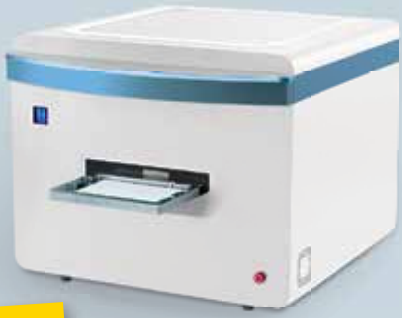

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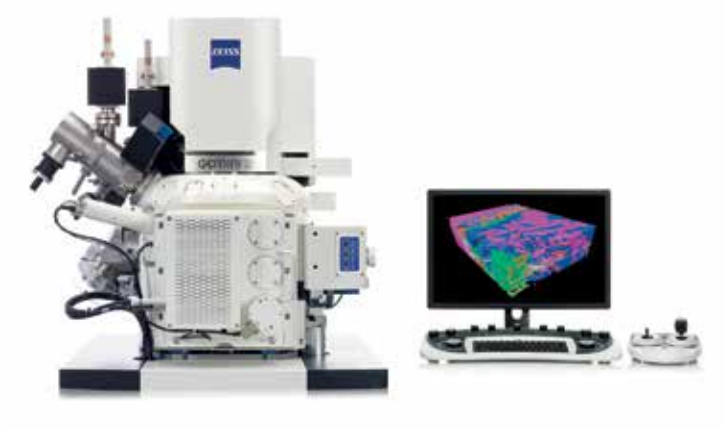

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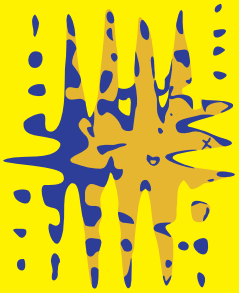

19. DEUTSCHE PHYSIKERINNENTAGUNG

15. - 18. Oktober 2015
Göttingen

- Fach- und gesellschaftspolitische Vorträge
- Schülerinnenprogramm
- Laborführungen
- Themennachmittag zum „International Year of Light“

Weitere Infos folgen unter
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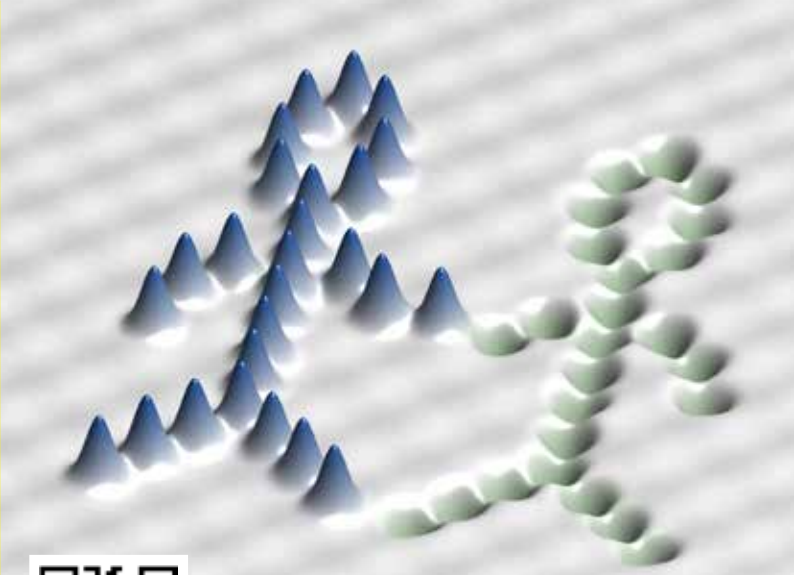

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