

Deutsche Physikalische Gesellschaft



DPG-Frühjahrstagung 2023

**DPG Spring Meeting 2023
of the Condensed Matter Section (SKM)**

together with the Working Groups

- Equal Opportunities
- Industry and Business
- Young DPG
- Young Leaders in Physics

Exhibition
of Scientific Instruments and Literature

Short Programme

26 – 31 March 2023

Technische Universität Dresden



Impressum:

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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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AUSSCHREIBUNG FÖRDERPROGRAMME



- WE-Heraeus-Seminare
- Binationale WE-Heraeus-Seminare
- WE-Heraeus-Physikschulen
- WE-Heraeus-Klausurtagungen
- WE-Heraeus Fast Track Workshops

- Einzelprojekte an Schulen und außerschulischen Lernorten
- Lehrerfortbildungen
- WE-Heraeus-Seniorprofessuren



Infos unter
[www.we-heraeus-stiftung.de/
aktivitaeten](http://www.we-heraeus-stiftung.de/aktivitaeten)

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Deutsche Physikalische Gesellschaft  DPG

62. Wochenendseminar

„Physiker:innen im Beruf“

Der Übergang von der Hochschule in die **berufliche Karriere** fällt vielen nicht leicht:
 Die Möglichkeiten und Aufgabengebiete sind vielfältig – und wer kennt schon nach Studium oder Promotion die verschiedenen Anforderungen und Arbeitsabläufe?

Das Seminar bietet durch **Erfahrungsberichte** etablierter Physiker:innen sowie junger Berufsanfänger:innen Orientierung. Die 15 Vortragenden repräsentieren ganz verschiedene Arbeitsgebiete und zeigen damit das breite **Einsatzspektrum** von Physikerinnen und Physikern.

Neben den Vorträgen bietet der gemütliche Lichtenbergkeller des Physikzentrums Bad Honnef ein ideales Forum, mit den Vortragenden am Abend **in kleiner Runde offen** zu **diskutieren** und Erfahrungen zu sammeln.

Zielgruppe:
 Physikstudierende ab Bachelor bis zur Promotion. Max. 80 Personen.

5. bis 7. Mai 2023

Physikzentrum Bad Honnef

Weitere Infos und Anmeldung: www.pib.dpg-physik.de

Greeting

Dear Participants,

Welcome to the DPG-Frühjahrstagung (DPG Spring Meeting) of the Condensed Matter Section (SKM) with the participating divisions and working groups involved on the campus of the Technische Universität Dresden (TUD).

I am very pleased that with our DPG-Frühjahrstagungen (DPG Spring Meetings), even more so in presence, we can once again set a widely visible and public sign for the outstanding importance of basic research for scientific and societal progress. Basic research is indispensable for tackling the major societal challenges. Above all a sustainable energy supply with regard to climate change with its dramatic consequences for all life on our planet. On the other hand, the spring conferences are probably the most important instrument of the DPG to enable as many scientists as possible, especially young scientists, to participate in a cross-border, international and peaceful scientific exchange.

The last year has shown us with full force how important and by no means self-evident such a necessary and international exchange is, how vulnerable our world order is and how quickly a change can take place that even threatens the existence of countries. Therefore, it is the special responsibility of the DPG – guided by the values in our DPG Statutes, our compass – to stand up for freedom, tolerance, truthfulness and dignity in science and to act in awareness that we are particularly responsible for shaping the whole of human life: Especially and particularly in troubled times!

The DPG conference at the TUD plays an outstanding role for peaceful international scientific exchange and discourse as well as for the perception and appreciation of the work of the DPG. I would therefore like to thank all those involved for their great commitment to the success of this conference.

My special thanks go to the TUD for its hospitality and support. I would like to sincerely thank the Wilhelm and Else

Heraeus Foundation for once again generously supporting all DPG Spring Meetings. My great appreciation goes to the participating divisions and working groups for a great programme.

I would especially like to thank the Local Organising Committee, Prof. Jochen Geck, Technische Universität Dresden, Institute of solid state and material physics (IFMP), and his entire team.

For the support of all DPG-Frühjahrstagungen (DPG Spring Meetings), my special thanks go to the DPG Head Office.

A handwritten signature in black ink, consisting of the name 'Joachim' written in a cursive script followed by a stylized monogram 'Ullrich'.

Prof. Dr. Joachim Ullrich
President
Deutsche Physikalische Gesellschaft e.V.

Gefördert durch

WILHELM UND ELSE
HERAEUS-STIFTUNG



Deutsche Physikalische Gesellschaft

Leading for Tomorrow

Physikerinnen und Physiker in
Führungspositionen?

Trotz oder **wegen** Physikstudiums?

Wirtschaft oder
Wissenschaftsmanagement?

Ist das überhaupt was
für mich?

Mehrtägige Intensivworkshops
und Learning Expedition

Bewerbung möglich vom 1. bis 31. März 2023

Mehr Informationen und
die Möglichkeit zur Bewerbung:
leading-for-tomorrow.dpg-physik.de



Organisation

Organiser

Deutsche Physikalische Gesellschaft e.V.

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Homepage www.dpg-physik.de

Local Organiser

Prof. Dr. Jochen Geck

Technische Universität Dresden

Institut für Festkörper- und Materialphysik

Haeckelstraße 3, 01062 Dresden

Phone +49 (0) 351 463 37589

Email jochen.geck@tu-dresden.de

Scientific Organisation

Chair of the Condensed Matter Section (SKM)

Prof. Dr. Martin Wolf

Fritz-Haber-Institut der MPG

Abt. Physikalische Chemie

Faradayweg 4-6, 14195 Berlin

Phone +49 (0) 30 84135 111

Email wolf@fhi-berlin.mpg.de

Chairs of the Participating Divisions of the DPG:

(BP) Biological Physics

– Prof. Dr. Joachim Rädler (raedler@lmu.de)

(CPP) Chemical and Polymer Physics

– Prof. Dr. Hans-Jürgen Butt

(butt@mpip-mainz.mpg.de)

(DS) Thin Films

– Prof. Dr. Stefan Krischok

(stefan.krischok@tu-ilmenau.de)

(DY) Dynamics and Statistical Physics

– Prof. Dr. Markus Bär (markus.baer@ptb.de)

- (HL) Semiconductor Physics
– Prof. Dr. Axel Lorke (axel.lorke@uni-due.de)
- (KFM) Crystalline Solids and their Microstructure
– J. Prof. Dr. Anna Grünebohm
(anna.gruenebohm@rub.de)
- (MA) Magnetism
– Prof. Dr. Heiko Wende (heiko.wende@uni-due.de)
- (MM) Metal and Material Physics
– Prof. Dr. Christian Elsässer
(christian.elsaesser@iwm.fraunhofer.de)
- (O) Surface Science
– Prof. Dr. Ulrich Höfer
(ulrich.hoefer@physik.uni-marburg.de)
- (SOE) Physics of Socio-economic Systems
– Dr. Philipp Hövel (philipp.hoevel@gmail.com)
- (TT) Low Temperature Physics
– Prof. Dr. Elke Scheer
(elke.scheer@uni-konstanz.de)
- (VA) Vacuum Science and Technology
– Dr.-Ing. Stylianos Varoutis
(stylianos.varoutis@kit.edu)

Chairs of the Participating Working Groups

- (AGYouLeap) Young Leaders in Physics
– Dr. Tobias Heindel (tobias.heindel@tu-berlin.de)
– Dr. Doris Reiter (Doris.Reiter@tu-dortmund.de)
- (AKC) Equal Opportunities
– StR Agnes Sandner (akc@dpg-physik.de)
- (AIW) Industry and Business
– Dr. Udo Weigelt (weigelt@grunecker.de)
- (AKjDPG) Young DPG
– Vivienne Leidel (leidel@jdpdg.de)

Symposia

- SYFP – Physics of Fluctuating Paths
- SYGM – Green Magnets for Efficient Energy Conversion
- SYHS – Physics of van der Waals 2D Heterostructures
- SYOF – Dynamics of Opinion Formation – From Quorum Sensing to Polarization

- SYQC – Topology in Quantum and Classical Physics –
From Topological Insulators to Active Matter
- SYQD – Real-Time Measurements of Quantum Dynamics
- SYSD – SKM Dissertation Prize 2023
- SYTS – Topological Superconductor-Magnet Hetero-
structures
- SYUE – Ultrafast Excitation Pathways of Quantum Materials

Organisation of the Exhibition of Scientific Instruments and Literature

DPG-Ausstellungs-, Kongreß- und Verwaltungsgesellschaft mbH

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Programme

The scientific programme consists of **4.134** contributions:

11	Plenary Talks
1	Evening Talk
5	Prize Talks
1	Ceremonial Talk
5	Lunch Talks
211	Invited Talks
54	Topical Talks
2667	Contributions
7	Tutorials
1169	Posters
3	Discussions

Ceremonial Session with Award Ceremony

Deutsche Physikalische Gesellschaft

Award Ceremony

Walter-Schottky-Prize 2023

to Dr. Kai-Qiang Lin
Universität Regensburg

Gaede-Prize 2023

to Dr. Benjamin Stadtmüller, TU Kaiserslautern and
Johannes Gutenberg-Universität Mainz

Dissertation Prize of the Condensed Matter Section (SKM)

(The award winner will be selected after the
Dissertation Award Symposium SYSD)

Ceremonial Lecture

Prof. Dr. Metin Tolan
Universität Göttingen

*„Die Star Trek Physik –
Warum die Enterprise nur 158 kg wiegt
und andere galaktische Erkenntnisse“*

**Tuesday, March 28, 2023, 15:30 Uhr
HSZ 01 (Audimax)**



Information for Participants

The conference will be held March 26 – 31, 2023.

1. Conference Information

1.1 Conference Venue

Technische Universität Dresden
Campus Südvorstadt
Bergstraße 64
01069 Dresden

The central activities like registration etc. will take place in the Lecture Hall Center (HSZ) of the TU Dresden (Bergstraße 64). For a detailed map of the campus and the buildings please see end of this booklet. The location of the lecture rooms on the campus can be found at the campus navigator of TU Dresden <https://navigator.tu-dresden.de/> or the DPG-App (see 1.3.1).

1.2 Conference Office / Information Desk

The conference office and the information desk are located in the Lecture Hall Center, HSZ E01.

		Registration	Information Desk
Sunday	March 26	15:00 – 19:00	15:00 – 20:00
Monday	March 27	08:00 – 18:00	08:00 – 20:00
Tuesday	March 28	08:00 – 16:00	08:00 – 18:00
Wednesday	March 29	08:00 – 16:00	08:00 – 18:00
Thursday	March 30	08:00 – 16:00	08:00 – 18:00
Friday	March 31	08:00 – 12:00	08:00 – 15:00

Beside this programme you will receive your name tag, a receipt for your conference fee, the Login-Password for using WLAN (WiFi) as well as **food and drink vouchers for the Welcome Evening** (Sunday 18:30-21:30). The name tag must be worn visibly during the entire conference.

Please note: This year, no conference ticket for public transportation is included in the conference pass. We kindly ask you to buy a ticket yourself if you need it (the DVB one-week ticket price level A1 Dresden tariff zone at the normal price for 22,90 EUR is transferable, i.e. it is not personal).

The organisers, staff of the conference desk and student assistants will be identifiable by colored name tags and T-shirts. Please contact them if you have any questions. Do not hesitate to come to the information desk and inquire about all necessary information concerning the conference, orientation in Dresden, accommodation, restaurants, going out and cultural events.

1.3 Lecture Rooms

The lecture rooms will be signposted by abbreviations for the respective buildings and the room number. The campus map and location of the buildings are printed at the end of this document.

Abbr. **Building** (see also: <https://navigator.tu-dresden.de/>)

BAR	Barkhausen-Bau
REC	Recknagel-Bau
CHE	Chemiegebäude (Chemistry Building)
SCH	Georg-Schumann-Bau
GER	von-Gerber-Bau
Tents	Tents behind the Lecture Hall Center / Exhibition
GÖR	Görges-Bau
TOE	Toepler-Bau
HSZ	Hörsaalzentrum (Lecture Hall Center)
TRE	Trefftz-Bau
MER	Merkel-Bau
WIL	Willers-Bau
MOL	Mollier-Bau
ZEU	Zeuner-Bau
POT	Gerhard-Potthoff-Bau

1.3.1 With the DPG-App through the Spring Meetings!

The DPG-App provides important information about the conference programme, the venue and the industry and book exhibition. With the help of new functions such as “What’s going on now?” or the overview for buildings, it is now easier to find your way across the campus. Download the free “DPG Spring Meetings” app for Android or iOS now!

1.4 Presentations

Scientific presentations will be held either orally or by poster. The default language is English. Presentations with a German abstract will be given in German.

1.4.1 Oral Presentations

Lecturers are requested to provide their presentations electronically. All lecture rooms are equipped with a projector mainly with HDMI input. Overhead Presenters are not available.

Laptops must be provided by the speakers as well as all associated adapters (e.g. HDMI to VGA, Apple-adapter). Furthermore, the presentation should be recorded onto a USB stick as back-up in PDF or Power Point format.

All laptops must be set up and connected with the data projector before the start of the respective session. All rooms will be opened at latest 30 minutes prior to the lecture. Speakers are requested to be in the lecture room at least 20 minutes prior to the start of the session, to report to the chairperson as well as the technical staff, to ensure that the laptops handshake with the beamer, and to receive a brief introduction to the equipment in the lecture room.

1.4.2 Poster Presentation

Sites for poster sessions are named and located as follows:

P1A	Tent A behind the Lecture Hall Center (Exhibition Tent)
P2/EG	Lecture Hall Center (HSZ): foyer
P2/10G	HSZ: 1st floor (hallway)
P2/20G	HSZ: 2nd floor (hallway)
P2/30G	HSZ: 3rd floor (hallway)
P2/40G	HSZ: 4th floor (hallway)
P3	Chemiegebäude (Chemistry Building (CHE)) in the foyer

Posters must fit within a rectangle 90 cm wide and 120 cm high (DIN A0), portrait format!

The poster boards will be marked with the number accord-

ing to the scientific programme. Authors are asked to mount their poster when the poster board is prepared with the corresponding poster number. Usually this will be arranged in the morning, or one hour before the session when there are several poster sessions per day. Each poster should display the number according to the scientific programme.

For the mounting of the poster please use the prepared “power strips” 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 poster session. Any posters remaining on display walls after the poster session will be removed and disposed of without requesting your permission. The conference management accepts no liability for the posters.

1.5 Notice Board

All changes to the conference programme (i.e. cancellation of presentations, change of rooms, etc.) will be continuously updated on the notice board of the conference website. All upcoming changes are also taken into account in the regular updates of the electronic version of the conference programme which is available in different formats (sorted by publication date, filterable by conference parts and as an rss-feed). Please use the form <https://skm23.dpg-tagungen.de/programm/notice-board-form> to notify changes or cancellations.

2. General Information

2.1 Internet

EDUROAM

The TU Dresden is member of the eduroam-network. Users from eduroam institutions, who have registered for eduroam, can use WLAN at the TU Dresden without local registration in Dresden. Eduroam in Dresden is possible with WLAN SSID eduroam.

WLAN in the buildings of TU-Campus

For internet access at TU Dresden, please use your individual login-password on your registration document. Please search for and connect to the network named „VPN/WEB“. If this network isn't shown in the list of available networks, the access isn't possible. After you have been connected, please visit any website with your browser to get redirected to the login page of the network. Enter your username and password and click on „Login“. Afterwards you should be able to access the internet. This connection is not encrypted.

2.2 Message Board

Important general information about TU Dresden and the city of Dresden is displayed on a message board in the foyer of the Lecture Hall Center (HSZ). Alterations of the scientific programme however will be announced via the conference website "Notice Board".

2.3 Public Working Area

Public working rooms where you can work on your laptop are located in CHE 184 and GER 007.

2.4 Cloakroom

A guarded cloakroom is located in the basement of the Lecture Hall Centre (HSZ). The opening hours are as follows:

Sunday	March 26	15:00 – 21:30
Monday	March 27	08:00 – 21:30
Tuesday	March 28	08:00 – 20:30
Wednesday	March 29	08:00 – 20:30
Thursday	March 30	08:00 – 22:00
Friday	March 31	08:00 – 14:00

2.5 Lost and Found Property

You can bring found items to the Lecture Hall Center, room E03 (next to the information desk). There you can also get your lost property back.

3. Catering

3.1 Coffee Breaks

Free coffee and tea will be offered during the breaks in many locations of the conference (see also in the legend of the campus map). You want to actively contribute to protect our climate and environment? Then please bring your own cup or use your paper cup several times. Thank you!

3.2 Snacks

You can get coffee, tea, refreshments and snacks as indicated in the campus map at the:

- Tent B behind the Lecture Hall Center
Monday to Thursday, 08:00 – 19:00; Friday 08:00 – 14:00
- „Grill-Cube“ next to the exhibition Tent B
Monday to Friday, 09:00 – 15:00
- Restaurant of the Leibniz-Institute IFW Dresden
Monday to Friday, 08:00 – 15:00
- „insgrüne coffeebar“ in the Georg-Schumann-Bau (SCH)
Monday to Friday, 10:00 – 15:00
- Cafeteria & Mensa “Alte Mensa”, Mommsenstraße 13
Monday to Thursday, 08:00 – 16:00; Friday 08:00 – 15:00
- Cafeteria & Mensa Zeltschlösschen, Nürnberger Str. 55
Monday to Friday, 08:00 – 15:30
- Cafeteria & Mensa Siedepunkt, Zellescher Weg 17
Monday to Friday, 11:00 – 15:00

as well as at Bergstr. 68 „FIRAT-Kebab-Haus“ and Münchner Str. „DERSIM-Dürüm-Kebab-Haus“ and bakery „Möbius“.

Please note: Only cash payment is possible in all mensas (no cards!).

3.3 Lunch

The Mensa Zeltschlösschen, Mensa Siedepunkt and the Mensa Mommsenstraße offer plenty of opportunities for

lunch at moderate prices (self-payment). The IFW restaurant offers regular meals for a limited number of conference participants.

4. Events

4.1 Public Evening Lecture

Sunday, March 26, 18:30 – 20:00, HSZ 01 (Audimax, in German language)

Prof. Dr. Ricarda Winkelmann, Potsdam Institute for Climate Impact Research (PIK) will speak about „*Kipp-Punkte im Klimasystem: Vorboten aus dem polaren Eis*“. All conference participants and the interested public are welcome.

4.2 Welcome Evening

On Sunday, March 26, 18:30 – 21:30 the Welcome Evening will be held in the Tent A. Small food, beer and soft drinks will be served. Do not miss the opportunity to register (15:00 – 19:00) before the official beginning of the conference and to meet people in an informal atmosphere. When registering for the conference you will receive your badge and food and drink vouchers for the Welcome Evening. Please wear your badge which you have received at the registration.

4.3 Opening of the Conference

A short opening address will be given by the chair of the Condensed Matter Section (SKM) on Monday, March 27 from 8:25 until 8:30 in HSZ 01 (Audimax).

4.4 EinsteinSlam

Monday, March 27, 20:00, HSZ 01 (Audimax)

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 English. For more information please refer to www.einstein-slam.de.

4.5 Ceremonial Session with Award Ceremony

On Tuesday, March 28, at 15:30 the Ceremonial Session with Award Ceremony will take place in HSZ 01 (Audimax). The programme is as follows:

Music

„Viviendo Trio“

Welcome

Prof. Dr. Jochen Geck, TU Dresden

Local Organiser

Prof. Dr. Ronald Tetzlaff, Prorector for Research at the Technical University of Dresden and Chief Officer Technologietransfer und Internationalisierung

Speech

Dr. Lutz Schröter

Vice-President of the Deutsche Physikalische Gesellschaft

Music

Award Ceremony

Walter-Schottky-Prize 2023

to Dr. Kai-Qiang Lin, Universität Regensburg

Gaede-Prize 2023

to Dr. Benjamin Stadtmüller, TU Kaiserslautern und Johannes Gutenberg-Universität Mainz

Dissertation Prize

of the Condensed Matter Section 2023

(The Laureate will be announced after the SKM-Dissertations-Prize Symposium)

Ceremonial Lecture

Prof. Dr. Metin Tolan, Universität Göttingen

„Die Star Trek Physik – Warum die Enterprise nur 158 kg wiegt und andere galaktische Erkenntnisse“

4.6 Job Market

During the conference, various companies and organisations will present their working fields and career opportunities to all interested participants. The presentations will last for about 30 minutes plus discussion and will take place in Room HSZ 405 (Tuesday-Thursday). For additional information and contacts refer to the information board close to the conference office.

Programme:

Tuesday, March 28

- 11:30 – 12:30 **neocx GmbH & Trace Tronic GmbH**
Tracetronic / neocx: Automate Everything – speeding up software testing in the automotive industry
- 12:45 – 13:45 **Ritzenhoefer GmbH**
Transformation Consulting – #impact23
- 14:00 – 15:00 **Wiley VCH-Verlag GmbH**
Physiker:innen im Wissenschaftsverlag

Wednesday, March 29

- 11:30 – 12:30 **Bundesamt für Sicherheit in der Informationstechnik**
Aus der Physik in die IT-Sicherheit – Karriere beim BSI
- 12:45 – 13:45 **Trumpf Lasersystems for Semiconductor Manufacturing GmbH**
TRUMPF Lasersystems for EUV Lithography – Enabler für das digitale Zeitalter gesucht
- 14:00 – 15:00 **Basycon Unternehmensberatung GmbH**
Aus der Wissenschaft in die Beratung
- 15:15 – 16:15 **ZEISS**
Am Herzschlag der Digitalisierung: Forschung & Entwicklung in der Halbleiterfertigungstechnik

Thursday, March 30

11:30 – 12:30 **Horn & Company Financial Services GmbH**
Horn & Company – Gewinne Einblicke in unsere Projekte zu Data Analytics, Big Data und Künstlicher Intelligenz und lerne unseren Beratungsansatz kennen!

14:00 – 15:00 **d-fine GmbH**
Einblicke in die Beratungspraxis bei d-fine – Projekte im Bankensektor

4.7 Exhibition of Scientific Instruments and Literature

From Tuesday to Thursday there will be an exhibition of Scientific Instruments and Literature. The exhibition will take place in the Lecture Hall Center (Foyer) and the nearby exhibition tent A. More than 130 companies (see list of exhibitors at the end of this document) will present their products. Opening hours are from 09:30 to 18:00 (Thursday until 16:00). All conference participants are welcome to attend the exhibition. The entrance is free.

4.8 Scientific Bar Hopping

On Tuesday, March 28, a scientific Bar Hopping will take place in cooperation with the jDPG, the student council Dresden and the Studiclubs of Dresden.

At a Scientific Bar Hopping scientists have the opportunity to communicate their research to an interested public. General comprehensibility is a must. The intimate atmosphere of the venues helps the public to overcome fears of contact with the researchers. After all, follow-up questions are explicitly encouraged. Spread over several Studiclubs in Dresden, several talks happen in parallel. Further details will be announced on the event website <https://scientific-barhopping.stura.tu-dresden.de/>.

4.9 jDPG Pub Crawl

On Wednesday evening, the young DPG invites to a pub crawl through Dresden. Next to the opportunity to be on a move outside and network with others, the members of the local regional group will tell about the Dresden physics, the life in the city and other facts worth knowing. Further details will be announced on the website of the conference.

4.10 Video competition: Physics in the Future

The public and also the physics community have various imaginations of how physics will look like in the future and what physics will be needed for in the future. The aim of this video competition is to bring together these different views and ideas for the “future of physics”. Even without a modified DeLorean and flux capacitor, the competition will bring to light many exciting answers. Time will show which ones will come true.

A Video box will be available from Monday to Friday in Tent A (exhibition tent) to help you easily participate in the video competition. Take part and tell us what you think about “physics in the future”.

5. 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 14, 2023 at the latest.

For more detailed information refer to <https://skm23.dpg-tagungen.de/registrierung/weh>.

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 37,800 young academics have been supported by this programme so far.

6. Members' Assemblies of the Divisions and Working Groups

During the DPG Spring Meeting, Members' Assemblies of the divisions and working groups take place. Please refer to the scientific programme for the time and place of the meetings.

7. CO₂ compensation for the DPG conferences

By decision of the Executive Board, the DPG will compensate for fossil CO₂ emissions resulting from mobility for DPG conferences and committee meetings.

8. Acknowledgement

The organisers want to thank

- the Wilhelm and Else Heraeus Foundation, Hanau
- the TU Dresden
- the official sponsors of the DPG-Frühjahrstagung (refer to page 23)

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

9. SAY CHEESE!

The DPG Spring Meetings are basically public to the press. Please note: On behalf of DPG, photos and videos will be recorded during the Spring Meetings. In the context of public relations, these recordings (as the case may be) will be published on our website, in social media or within prints of the DPG for example.

10. Disclaimer of liability

Participants are asked to look carefully after their wardrobe, valuables, laptops, and other belongings. The organisers are not liable.

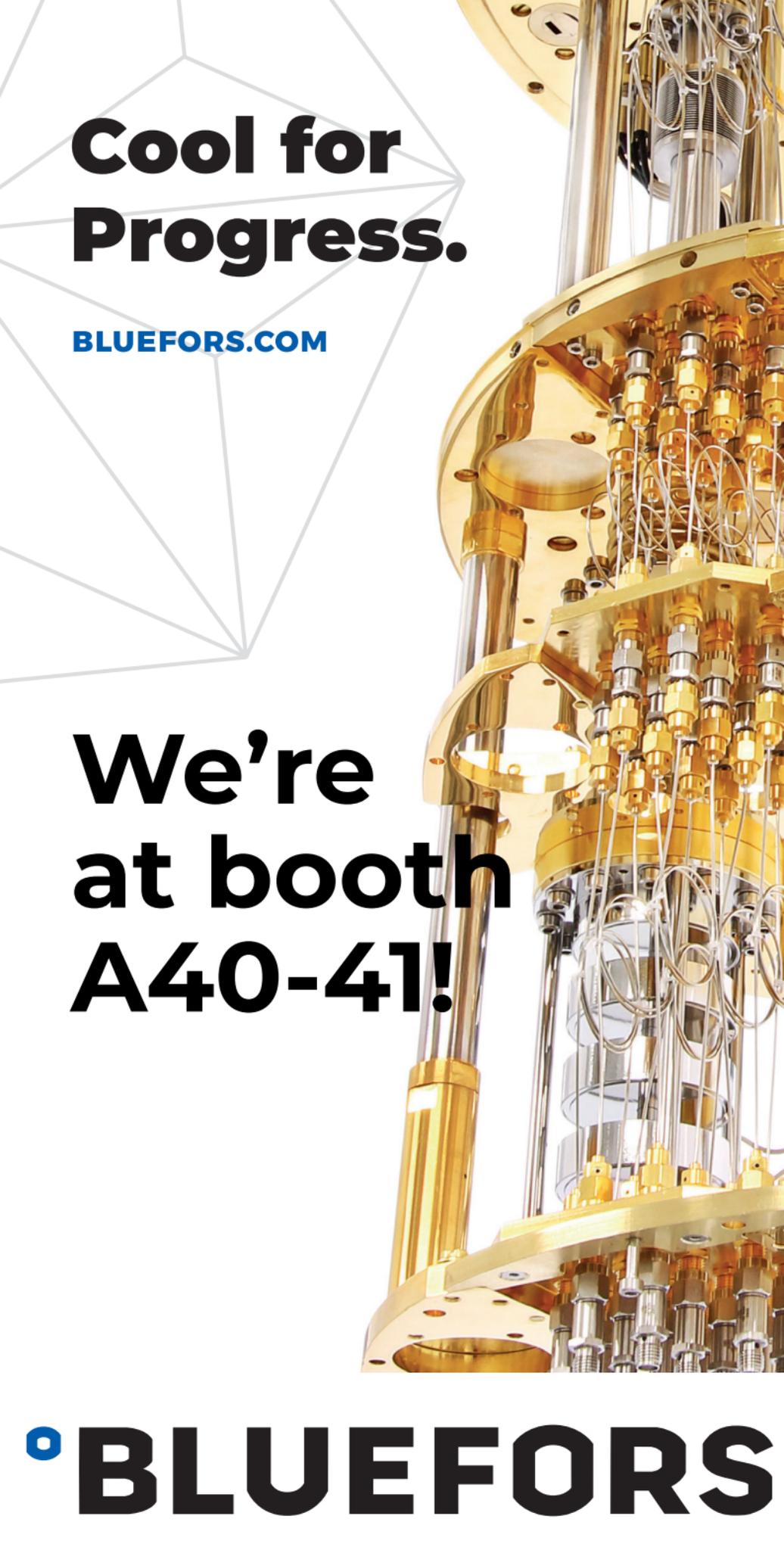
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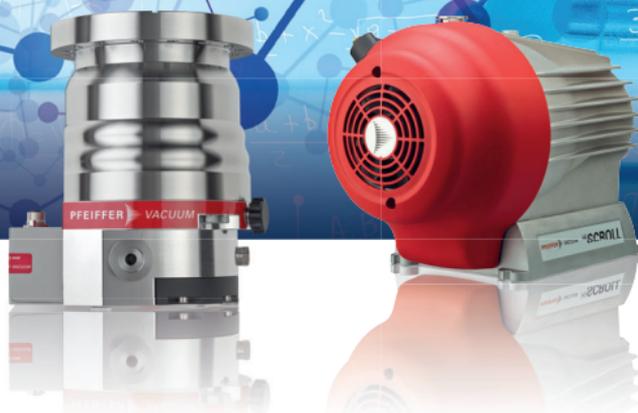
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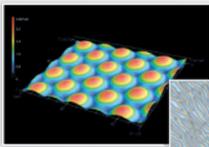
System Solutions

From Micro- to Nanofabrication

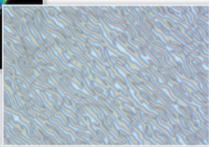
LASER



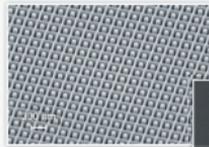
FIB



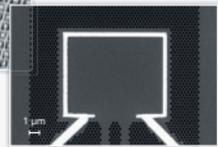
Grayscale
Lithography



Augmented/
Virtual Reality

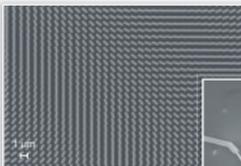


Metasurfaces

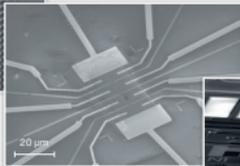


Phononic
Engineering

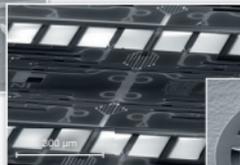
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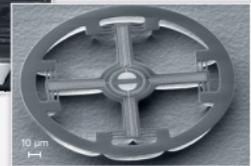
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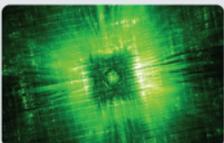


Measurement Tools

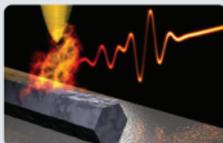
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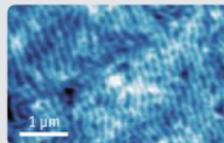
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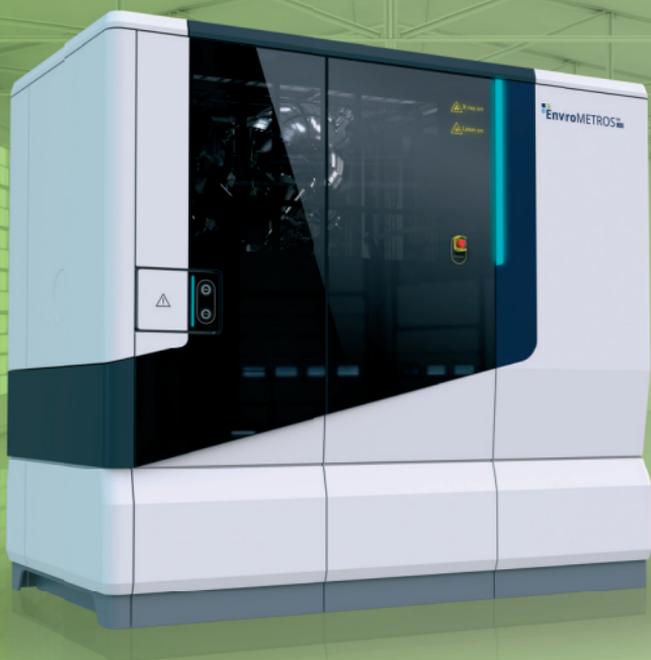
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Synopsis of the Daily Programme

Sunday, March 26, 2023

Tutorials (TUT)

Tutorials

TUT 1 16:00 – 18:15 HSZ 01

Physics Meets Machine Learning

TUT 1.1 16:00 – 16:45 HSZ 01

Machine Learning for Quantum Technologies

•*Florian Marquardt*

TUT 1.2 16:45 – 17:30 HSZ 01

The Unreasonable Effectiveness of Gaussians in the Theory of Deep Neural Networks

•*Zohar Ringel*

TUT 1.3 17:30 – 18:15 HSZ 01

Computing learning curves for large machine learning models using the replica approach

•*Manfred Opper*

TUT 2 16:00 – 18:15 HSZ 02

Stochastic Processes of Opinion Formation

TUT 2.1 16:00 – 16:45 HSZ 02

Bounded Confidence Revisited: What We Overlooked, Underestimated, and Got Wrong

•*Rainer Hegselmann*

TUT 2.2 16:45 – 17:30 HSZ 02

When intuition fails: the complex effects of assimilative and repulsive influence on opinion polarization

•*Michael Maes*

TUT 2.3 17:30 – 18:15 HSZ 02

How growing connectivity and self-organization changes opinion dynamics

•*Philipp Lorenz-Spreen*

- TUT 3 16:00 – 18:00 HSZ 03
Hands-on tutorial on workflows for materials science simulation
- TUT 3.1 16:00 – 18:00 HSZ 03
 Hands-on tutorial on workflows for materials science simulations
 •*Jörg Neugebauer*
- TUT 4 16:00 – 18:00 HSZ 04
Strategic elements and sustainability
- TUT 4.1 16:00 – 16:30 HSZ 04
 Making better batteries? – From Li-ion to Na-ion batteries
 •*Philipp Adelhelm*
- TUT 4.2 16:30 – 17:00 HSZ 04
 Sustainable Thermoelectric Materials Predicted by Data Mining and Machine Learning
 •*Kornelius Nielsch*
- TUT 4.3 17:00 – 17:30 HSZ 04
 Design strategies for electrocatalysts – an electrochemist’s perspective
 •*Kristina Tschulik*
- TUT 4.4 17:30 – 18:00 HSZ 04
 Green magnetic materials for efficient energy, transport and cooling applications
 •*Oliver Gutfleisch*
- PSV I 18:30 – 20:00 HSZ 01
Public Evening Talk (free entrance)
 Kipp-Punkte im Klimasystem: Vorboten aus dem polaren Eis
 •*Ricarda Winkelmann*
- 18:30 – 21:30 Tent A
Welcome Evening (for registered participants)
-

Monday, March 27, 2023

08:25 – 08:30 HSZ 01

Opening

Plenary Talks

PLV I

08:30 – 09:15 HSZ 01

Spin-Photon Interfaces and Their Applications

•*Mete Atatuere*

PLV II

14:00 – 14:45 HSZ 01

New directions in electromagnetic field mapping in materials in the transmission electron microscope

•*Rafal E. Dunin-Borkowski*

PLV III

14:00 – 14:45 HSZ 02

Microgels at Interfaces

•*Regine von Klitzing*

Lunch Talk, Discussion

PSV II

13:15 – 13:45 HSZ 02

Patentanwalt, Verfahren zu dessen Herstellung und Verwendung eines Patentanwalts

•*Carina Ehrig*

PSV III

13:15 – 13:45 HSZ 03

Talking about different career paths into Academia

•*Alexander Osterkorn, Christoph Kastl, Anna Grünebohm, and Amelie Heuer-Jungemann*

Symposium Dynamics of Opinion Formation – from Quorum Sensing to Polarization (SYOF)

Invited Talks

SYOF 1.1

09:30 – 10:00 HSZ 01

Towards understanding of the social hysteresis – insights from statistical physics

•*Katarzyna Sznajd-Weron*

- SYOF 1.2 10:00 – 10:30 HSZ 01
Polarization in attitude distributions from surveys and models of continuous opinion dynamics
•*Jan Lorenz*
- SYOF 1.3 10:30 – 11:00 HSZ 01
Collective patterns and stable misunderstandings in networks striving for consensus without a common value system
•*Johannes Falk*
- SYOF 1.4 11:15 – 11:45 HSZ 01
A yet undetected cognitive bias, revealed by opinion dynamics simulations
•*Guillaume Deffuant*
- SYOF 1.5 11:45 – 12:15 HSZ 01
Extreme switches in kinetic exchange models of opinion.
•*Parongama Sen*
- Symposium**
- SYOF 1 09:30 – 12:15 HSZ 01
Dynamics of Opinion Formation – from Quorum Sensing to Polarization

Symposium SKM Dissertation Prize 2023 (SYSD)

Invited Talks

- SYSD 1.1 09:30 – 10:00 HSZ 04
Diffusion of antibodies in solution: from individual proteins to phase separation domains
•*Anita Girelli*
- SYSD 1.2 10:00 – 10:30 HSZ 04
Intermediate Filament Mechanics Across Scales
•*Anna V. Schepers*
- SYSD 1.3 10:30 – 11:00 HSZ 04
Ultrafast Probing and Coherent Vibrational Control of a Surface Structural Phase Transition
•*Jan Gerrit Horstmann*

- SYSD 1.4 11:00 – 11:30 HSZ 04
Electro-active metasurfaces employing metal-to-insulator phase transitions
•*Julian Karst*
- SYSD 1.5 11:30 – 12:00 HSZ 04
The role of unconventional symmetries in the dynamics of many-body systems
•*Pablo Sala*
- Symposium**
- SYSD 1 09:30 – 12:00 HSZ 04
SKM Dissertation Prize

Symposium Green Magnets for Efficient Energy Conversion (SYGM)

Invited Talks

- SYGM 1.1 15:00 – 15:30 HSZ 01
Data mining protocols for functional magnetic materials
•*Olle Eriksson*
- SYGM 1.2 15:30 – 16:00 HSZ 01
High performance permanent magnets; elements criticality, new demands, and extrinsic magnetic properties
•*Hossein Sepehri-Amin*
- SYGM 1.3 16:00 – 16:30 HSZ 01
Magnetic shape memory Heuslers: microstructure-related effects on the martensitic transformation
•*Franca Albertini*
- SYGM 1.4 16:45 – 17:15 HSZ 01
Thin film combinatorial studies of hard magnetic materials
•*Nora Dempsey*
- SYGM 1.5 17:15 – 17:45 HSZ 01
Magnetocaloric materials for energy-efficient thermal control systems
•*Victorino Franco*

Symposium

- SYGM 1 15:00 – 17:45 HSZ 01
 Green Magnets for Efficient Energy
 Conversion

Biological Physics Division (BP)**Invited Talks**

- BP 1.7 11:15 – 11:45 BAR Schö
 Cell-free expression of membrane proteins
 and control of their spatial organization in
 synthetic lipid membranes
 •*Jan Steinkühler*
- BP 2.1 09:30 – 10:00 TOE 317
 Emergent properties in motile active matter
 •*Roland G. Winkler*
- BP 3.5 10:30 – 11:00 BAR 0106
 Resolving gating and allosteric modulation in
 ion channels through simulations and small-
 angle neutron scattering
 •*Erik Lindahl*
- BP 5.1 15:00 – 15:30 TOE 317
 Repurposing nucleic acids as high-
 resolution force sensors: From fundamental
 mechanotransduction to translational
 biophysics
 •*Khalid Salaita*
- BP 6.5 16:15 – 16:45 BAR 0106
 Mechanical and electrical properties of
 bacterial biofilms modulate antibiotic
 tolerance
 •*Berenike Maier*

Sessions

- BP 1 09:30 – 13:00 BAR Schö
 Membranes, Vesicles, Synthetic Cells
- BP 2 09:30 – 13:00 TOE 317
 Active Matter I

- BP 3 09:30 – 13:00 BAR 0106
Computational Biophysics I
- BP 4 15:00 – 17:30 BAR Schö
Tissue Mechanics I
- BP 5 15:00 – 17:30 TOE 317
Focus Session NanoAgents
- BP 6 15:00 – 17:15 BAR 0106
Bacterial Mechanics
- BP 7 15:00 – 18:15 ZEU 160
Active Matter II

Chemical and Polymer Physics Division (CPP)

Invited Talks

- CPP 1.1 09:30 – 10:00 GÖR 226
Strategies for advancing the performance of
organic photovoltaics
•*Thomas Anthopoulos*
- CPP 1.7 11:30 – 12:00 GÖR 226
Lost in translation? Transport resistance in
organic solar cells
•*Carsten Deibel*
- CPP 2.1 09:30 – 10:00 MER 02
Molecular Theories meet Explainable
Machine Learning – Novel Concepts for
Advanced Drug Formulations
•*Jens Smiatek*
- CPP 11.1 15:00 – 15:30 GÖR 226
Quantifying the potential of organic solar
cells using luminescence measurements and
modelling
•*Jenny Nelson*
- CPP 12.1 15:00 – 15:30 MER 02
Adaptive Resolution Simulations: Past,
Present and Open (Boundaries) Future
•*Robinson Cortes-Huerta*

- CPP 13.1 15:00 – 15:30 ZEU 255
 Nanocomposites and polymer thin films:
 from gas phase synthesis to functional
 applications
•Franz Faupel
- Sessions**
- CPP 1 09:30 – 13:00 GÖR 226
 Focus: Organic Solar Cells Based on Non-
 fullerene Acceptors: Loss Mechanism and
 Options for Above 20 % Efficiencies I
- CPP 2 09:30 – 13:00 MER 02
 Modeling and Simulation of Soft Matter I
- CPP 3 09:30 – 10:30 ZEU 255
 Hydrogels and Microgels
- CPP 4 09:30 – 13:00 TOE 317
 Active Matter I
- CPP 5 09:30 – 12:30 POT 81
 2D Materials I
- CPP 6 09:30 – 12:30 POT 251
 Perovskite and photovoltaics I
- CPP 7 09:30 – 11:15 POT 361
 Organic Semiconductors
- CPP 8 10:45 – 13:00 ZEU 255
 Responsive and Adaptive Systems
- CPP 9 11:30 – 12:45 SCH A 315
 Organic Thin Films, Organic-Inorganic
 Interfaces
- CPP 10 14:30 – 15:30 POT 106
 Instrumentation and Methods for Micro- and
 Nanoanalysis
- CPP 11 15:00 – 17:15 GÖR 226
 Focus: Organic Solar Cells Based on Non-
 fullerene Acceptors: Loss Mechanism and
 Options for Above 20 % Efficiencies II
- CPP 12 15:00 – 17:15 MER 02
 Modeling and Simulation of Soft Matter II

CPP 13	15:00 – 18:00	ZEU 255	Composites and Functional Polymer Hybrids
CPP 14	15:00 – 18:15	ZEU 160	Active Matter II
CPP 15	15:00 – 18:15	POT 81	2D Materials II
CPP 16	15:00 – 17:45	GER 39	Nanostructures at Surfaces
CPP 17	18:00 – 20:00	P3	Poster Session I

Thin Films Division (DS)

Sessions

DS 1	09:30 – 11:00	SCH A 316	2D Materials and their Heterostructures I: Graphene
DS 2	11:30 – 12:45	SCH A 316	2D Materials and their Heterostructures II: h-BN and WSe ₂
DS 3	11:30 – 12:45	SCH A 315	Organic Thin Films, Organic-Inorganic Interfaces
DS 4	15:30 – 17:00	SCH A 316	Thin Film Properties I

Dynamics and Statistical Physics Division (DY)

Invited Talks

DY 5.1	09:30 – 10:00	MOL 213	Extreme events, entropies and instantons for turbulence and water waves • <i>Joachim Peinke</i>
DY 8.1	12:30 – 13:00	ZEU 250	Novel phenomena and analysis methods in oscillator networks: higher-order interactions, higher-order averaging, and inference • <i>Hiroshi Kori</i>

- DY 10.6 16:30 – 17:00 ZEU 160
 Long-range communications enable the hierarchical self-organization of active matter
 •*Igor Aronson*
- DY 11.1 15:00 – 15:30 ZEU 250
 The challenge of structured disorder in statistical physics
 •*Marc Mezard*
- DY 11.2 15:30 – 16:00 ZEU 250
 The emergence of concepts in shallow neural-networks
 •*Elena Agliari*
- DY 11.3 16:00 – 16:30 ZEU 250
 Adaptive Kernel Approaches to Feature Learning in Deep Neural Networks
 •*Zohar Ringel*
- DY 11.5 17:00 – 17:30 ZEU 250
 Analysing the dynamics of message passing algorithms
 •*Manfred Opper*
- DY 11.6 17:30 – 18:00 ZEU 250
 Deep Learning Theory Beyond the Kernel Limit
 •*Cengiz Pehlevan*
- Sessions**
- DY 2 09:30 – 13:00 HSZ 03
 Focus Session: Physics Meets ML I – Machine Learning for Complex Quantum Systems
- DY 3 09:30 – 13:00 TOE 317
 Active Matter I
- DY 4 09:30 – 12:30 ZEU 250
 Pattern Formation, Delay and Nonlinear Stochastic Systems
- DY 5 09:30 – 12:15 MOL 213
 Fluid Physics: Turbulence and Convection

- DY 6 10:00 – 13:00 ZEU 160
Statistical Physics: General I
- DY 7 10:00 – 12:45 ZEU 147
Granular Matter and Contact Dynamics
- DY 8 12:30 – 13:00 ZEU 250
Invited Talk: Dynamics of Networks
- DY 9 14:00 – 17:15 MOL 213
Quantum Dynamics, Decoherence and
Quantum Information
- DY 10 15:00 – 18:15 ZEU 160
Active Matter II
- DY 11 15:00 – 18:30 ZEU 250
Focus Session: Physics Meets ML II –
Understanding Machine Learning as Complex
Interacting Systems

Semiconductor Physics Division (HL)

Invited Talks

- HL 3.1 09:30 – 10:00 POT 151
Schrödinger cat states of a 16-microgram
mechanical oscillator
•*Yiwen Chu*
- HL 3.2 10:00 – 10:30 POT 151
High-fidelity quantum information processing
with spins and phonons
•*Peter Rabl*
- HL 3.5 11:30 – 12:00 POT 151
Control of spin centers in silicon carbide
using acoustic fields
•*Alberto Hernández-Mínguez*
- HL 8.9 17:30 – 18:00 POT 81
Time-resolved optical spectroscopy of
3R-stacked MoS₂
•*Swarup Deb*

- HL 9.1 15:00 – 15:30 POT 361
Spin and valley lifetime in graphene quantum dots
•*Guido Burkard*
- HL 9.2 15:30 – 16:00 POT 361
Microscopic modelling of electrostatically induced bilayer graphene quantum dots
•*Angelika Knothe*
- HL 9.4 16:45 – 17:15 POT 361
Single-shot spin and valley Pauli blockade read-out in bilayer graphene quantum dots
•*Chuyao Tong*
- HL 9.5 17:15 – 17:45 POT 361
Particle-hole symmetry protects spin-valley blockade in graphene quantum dots
•*Christian Volk*
- HL 10.1 15:00 – 15:30 POT 151
Surface Acoustic Wave Cavity
Optomechanics with 2D Materials
•*Galan Moody*
- HL 10.2 15:30 – 16:00 POT 151
Phononic Microresonators Coupled by Surface Acoustic Waves
•*Sarah Benchabane*
- Sessions**
- HL 1 09:30 – 12:30 POT 81
2D Materials I
- HL 2 09:30 – 11:15 POT 361
Organic Semiconductors
- HL 3 09:30 – 13:00 POT 151
Focus Session: Progress in Hybrid Phononic Quantum Technologies I
- HL 4 09:30 – 12:30 POT 251
Perovskite and photovoltaics I
- HL 5 10:00 – 11:15 POT 112
Heterostructures, interfaces and surfaces

- HL 6 10:30 – 13:00 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory III
- HL 7 13:00 – 15:00 P2/EG
Poster I
- HL 8 15:00 – 18:15 POT 81
2D Materials II
- HL 9 15:00 – 17:45 POT 361
Focus Session: Graphene quantum dots
- HL 10 15:00 – 18:30 POT 151
Focus Session: Progress in Hybrid Phononic
Quantum Technologies II
- HL 11 15:00 – 17:15 POT 251
Quantum transport and quantum Hall effects I
- HL 12 15:00 – 17:15 POT 112
Semiconductor lasers I
- HL 13 15:00 – 17:15 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory II

Crystalline Solids and their Microstructure Division (KFM)

Invited Talks

- KFM 1.1 09:00 – 09:30 POT 51
Investigations of multiferroic behavior within
domains and domain walls of a multiferroic
Aurivillius phase system
•*Lynette Keeney*
- KFM 1.5 10:45 – 11:15 POT 51
Domains or no Domains in Wurtzite-Type
Ferroelectrics
•*Simon Fichtner*
- KFM 2.1 14:30 – 15:00 POT 51
Formation of conducting channels along of
dislocations in SrTiO₃
•*Christian Rodenbücher*

KFM 2.4 15:55 – 16:25 POT 51
 Plastic properties of MgO: Insights from numerical modeling
 •*Philippe Carrez*

Sessions

KFM 1 09:00 – 12:15 POT 51
 Focus: Domains and Domainwalls in (Multi) Ferroics I

KFM 2 14:30 – 17:05 POT 51
 Focus: Dislocations in Ceramics: Mechanics, Structures and Functionality

KFM 3 14:30 – 15:30 POT 106
 Instrumentation and Methods for Micro- and Nanoanalysis

Magnetism Division (MA)

Invited Talks

MA 2.1 09:30 – 10:00 HSZ 02
 Two-dimensional Skyrmions in the real three-dimensional world
 •*Nikolai Kiselev*

MA 8.1 15:00 – 15:30 HSZ 04
 Optical control of antiferromagnetism
 •*Christian Tzschaschel*

Sessions

MA 2 09:30 – 12:00 HSZ 02
 Skyrmions I

MA 3 09:30 – 12:30 HSZ 401
 Magnetic Materials for Efficient Energy Conversion

MA 4 09:30 – 13:00 HSZ 403
 Spin Transport and Orbitronics, Spin-Hall Effects

MA 5 09:30 – 11:00 POT 6
 Thin Films: Magnetic Coupling Phenomena / Exchange Bias

- MA 6 14:30 – 17:05 POT 51
Focus: Dislocations in Ceramics: Mechanics, Structures and Functionality
- MA 7 15:00 – 18:00 HSZ 02
Computational Magnetism
- MA 8 15:00 – 18:00 HSZ 04
Ultrafast Magnetization Effects I
- MA 9 15:00 – 17:45 HSZ 401
Cooperative Phenomena: Spin Structures and Magnetic Phase Transitions
- MA 10 15:00 – 17:15 HSZ 403
Topological Insulators
- MA 11 15:00 – 16:45 POT 6
Non-Skyrmionic Magnetic Textures I

Metal and Material Physics Division (MM)

Invited Talks, Topical Talks

- MM 2.1 09:30 – 10:00 SCH A 251
Function follows form: on tailoring functional materials via microstructural design
•*Erica Lilleodden*
- MM 4.1 10:15 – 10:45 SCH A 216
Crack and dislocations interactions: coupling DDD and XFEM
•*Marc Fivel*
- MM 4.2 10:45 – 11:15 SCH A 216
multiscale studies on the fracture behaviors of body centered cubic metal
•*Yinan Cui*
- MM 4.4 11:45 – 12:15 SCH A 216
Capturing Micromechanical Crack Tip Stress States and Toughening Plasticity in 2D and 3D
•*Thomas E. J. Edwards*

- MM 7.1 15:00 – 15:30 SCH A 251
Molecular dynamics simulations of shock waves in alloys: Interplay of defects and phase transition
•*Nina Merkert*
- MM 9.1 15:45 – 16:15 SCH A 216
Modeling of grain boundary embrittlement phenomena in metallic materials
•*Lorenz Romaner*
- Sessions**
- MM 2 09:30 – 10:00 SCH A 251
Invited Talk: Lilleodden
- MM 3 10:15 – 13:00 SCH A 251
Development of Computational Methods: Evaporation, Growth and Oxidation – Density Functional, Tight Binding
- MM 4 10:15 – 13:00 SCH A 216
Topical Session: Fundamentals of Fracture – Micromechanical Fracture Experiments
- MM 5 10:15 – 13:00 SCH A 215
Materials in Energy Conversion: Mechanical Properties and Solid State Batteries
- MM 6 10:15 – 13:00 SCH A 118
Transport in Materials: Ion, Charge and Heat Transport
- MM 7 15:00 – 15:30 SCH A 251
Invited Talk: Merkert
- MM 8 15:45 – 17:45 SCH A 251
Development of Computational Methods: Diverse Topics and Machine Learning
- MM 9 15:45 – 18:00 SCH A 216
Topical Session: Fundamentals of Fracture – Interface Fracture
- MM 10 15:45 – 16:45 SCH A 215
Materials for Storage and Conversion of Energy: New Storage Materials

- MM 11 17:00 – 18:15 SCH A 215
 Functional Materials: Performance, Reliability
 and Degradation
- MM 12 18:15 – 20:00 P2/OG1+2
 Poster I

Surface Science Division (O)

Invited Talk, Topical Talks

- O 1.1 09:30 – 10:15 TRE Phy
 From surface structure to exciton evolution: a
 many-body theoretical perspective
 •*Sivan Refaely-Abramson*
- O 5.1 10:30 – 11:00 GER 38
 Highly charged, slow and swift ions
 interacting with surfaces and 2D materials
 •*Marika Schleberger*
- O 5.4 11:30 – 12:00 GER 38
 A contactless single-step process for
 simultaneous nanoscale patterning and
 cleaning of large-area graphene
 •*Tuan Tran*
- O 7.1 10:30 – 11:00 REC C 213
 Superconductivity in atom-by-atom crafted
 quantum corrals
 •*Lucas Schneider*
- O 9.3 11:00 – 11:30 TRE Ma
 Large-scale machine-learning assisted
 discovery and characterization of materials
 •*Miguel Alexandre Lopes Marques*
- O 10.1 15:00 – 15:30 CHE 89
 Photoemission Orbital Tomography: Imaging
 Molecular Wave Functions in Reciprocal and
 Real Space
 •*F. S. Tautz*
- O 13.1 15:00 – 15:30 GER 38
 Space weathering of planetary surfaces
 •*Peter Wurz*

- O 16.4 15:45 – 16:15 TRE Phy
 Microscopic insight into non-equilibrium dynamics through time-resolved x-ray absorption spectroscopy
 •*Andrea Eschenlohr*
- O 17.1 15:00 – 15:30 TRE Ma
 Coupled-cluster theory for complex solids made ready
 •*Andreas Grüneis*
- Sessions**
- O 1 09:30 – 10:15 TRE Phy
 Overview Talk Sivan Refaely-Abramson
- O 2 10:30 – 13:00 CHE 89
 Organic Molecules on Inorganic Substrates I: Electronic, Optical and Other Properties I
- O 3 10:30 – 12:15 CHE 91
 Metal Substrates: Adsorption and Reaction of Small Molecules I
- O 4 10:30 – 12:30 GER 37
 Tribology: Surfaces and Nanostructures
- O 5 10:30 – 13:00 GER 38
 Focus Session: Ion Beam Interaction with Surfaces and 2D Materials I
- O 6 10:30 – 13:00 GER 39
 New Methods: Experiments and Theory
- O 7 10:30 – 13:00 REC C 213
 Spins on Surfaces at the Atomic Scale I
- O 8 10:30 – 12:45 TRE Phy
 Ultrafast Electron Dynamics at Surface and Interfaces I
- O 9 10:30 – 13:00 TRE Ma
 Focus Session: Frontiers of Electronic-Structure Theory I
- O 10 15:00 – 17:30 CHE 89
 Organic Molecules on Inorganic Substrates II: Electronic, Optical and Other Properties II

- O 11 15:00 – 17:15 CHE 91
Surface Reactions
- O 12 15:00 – 17:00 GER 37
Scanning Probe Techniques: Method
Development I
- O 13 15:00 – 17:15 GER 38
Focus Session: Ion Beam Interaction with
Surfaces and 2D Materials II
- O 14 15:00 – 17:45 GER 39
Nanostructures at Surfaces
- O 15 15:00 – 18:00 REC C 213
Spins on Surfaces at the Atomic Scale II
- O 16 15:00 – 17:30 TRE Phy
Ultrafast Electron Dynamics at Surface and
Interfaces II
- O 17 15:00 – 17:15 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory II
- O 18 18:00 – 20:00 P2/EG
Poster: 2D Materials I
- O 19 18:00 – 20:00 P2/EG
Poster: Ultrafast Electron Dynamics at
Surface and Interfaces I
- O 20 18:00 – 20:00 P2/EG
Poster: Spins and Magnetism at Surfaces
- O 21 18:00 – 20:00 P2/EG
Poster: Scanning Probe Techniques
- O 22 18:00 – 20:00 P2/EG
Poster Session: Organic Molecules on
Inorganic Substrates I
- O 23 18:00 – 20:00 P2/EG
Poster: Surface Reactions
- O 24 18:00 – 20:00 P2/EG
Poster: Ion Beam Interaction with Surfaces
and Interfaces

O 25 18:00 – 20:00 P2/EG

Poster: Metal Substrates

O 26 18:00 – 20:00 P2/EG

Poster: New Methods

Physics of Socio-economic Systems Division (SOE)

Invited Talks

SOE 3.1 15:10 – 15:55 HSZ 03

Initial Progress on the Science of Science

•*Dashun Wang (Laureate of the SOE-Young Scientist Award 2023)*

SOE 3.2 16:00 – 16:45 HSZ 03

Complexity science can address marginalization in society and algorithms

•*Fariba Karimi (Laureate of the SOE-Young Scientist Award 2023)*

Sessions

SOE 2 12:30 – 13:00 ZEU 250

Invited Talk: Dynamics of Networks

SOE 3 15:00 – 17:00 HSZ 03

Award Session: Young Scientist Award for Socio- and Econophysics (YSA)

SOE 4 17:00 – 19:00 P2/OG2

Poster

Low Temperature Physics Division (TT)

Invited Talks

TT 2.1 09:30 – 10:00 HSZ 03

Enhanced variational Monte Carlo for Rydberg atom arrays

•*Stefanie Czischek*

TT 2.2 10:00 – 10:30 HSZ 03

Data mining the output of quantum simulators – from critical behavior to algorithmic complexity

•*Marcello Dalmonte*

- TT 2.3 10:30 – 11:00 HSZ 03
Reinforcement learning for quantum technologies
•*Florian Marquardt*
- TT 2.4 11:00 – 11:30 HSZ 03
Machine learning of phase transition
•*Christof Weitenberg*
- TT 8.1 15:00 – 15:30 HSZ 103
Molecules on a superconductor: Inducing magnetism and resonance-enhanced vibrational spectroscopy
•*Richard Berndt*
- TT 17.3 17:15 – 17:45 HSZ 304
Noise signatures of anyon statistics and Andreev scattering in the $\nu = 1/3$ fractional quantum Hall regime
•*Anne Anthore*
- Sessions**
- TT 2 09:30 – 13:00 HSZ 03
Focus Session: Physics Meets ML I – Machine Learning for Complex Quantum Systems
- TT 3 09:30 – 13:00 HSZ 103
Superconductivity: Properties and Electronic Structure
- TT 4 09:30 – 13:00 HSZ 201
f-Electron Systems and Heavy Fermions I
- TT 5 09:30 – 13:15 HSZ 204
Correlated Electrons: Method Development
- TT 6 09:30 – 13:00 HSZ 304
Topological Semimetals
- TT 7 09:30 – 13:00 HSZ 403
Spin Transport and Orbitronics, Spin-Hall Effects
- TT 8 15:00 – 17:15 HSZ 103
Yu-Shiba-Rusinov Systems
- TT 9 15:00 – 17:00 HSZ 201
f-Electron Systems and Heavy Fermions II

- TT 10 15:00 – 18:15 HSZ 204
Correlated Electrons: Other Materials
- TT 11 15:00 – 16:30 HSZ 304
Spintronics, Spincalorics and
Magnetotransport
- TT 12 15:00 – 17:15 HSZ 403
Topological Insulators
- TT 13 15:00 – 18:30 ZEU 250
Focus Session: Physics Meets ML II –
Understanding Machine Learning as Complex
Interacting Systems
- TT 14 15:00 – 17:45 POT 361
Focus Session: Graphene Quantum Dots
- TT 15 15:00 – 17:15 POT 251
Quantum Transport and Quantum Hall
Effects I
- TT 16 15:00 – 18:00 P2/OG4
Poster: Transport
- TT 17 16:45 – 18:45 HSZ 304
Topology: Quantum Hall Systems
- TT 18 17:15 – 18:30 HSZ 201
Nano- and Optomechanics

Vacuum Science and Technology Division (VA)

Sessions

- VA 1 09:30 – 12:00 HSZ 301
Vacuum Technology: New Developments and
Applications
- VA 2 14:00 – 16:00 P2/OG2
Vacuum Technology: New Developments and
Applications – Poster

20:00 – 21:00 HSZ 01

EinsteinSlam

Tuesday, March 28, 2023

Plenary Talk

- PLV IV 08:30 – 09:15 HSZ 01
Stochastic thermodynamics: From concepts to model-free inference
•*Udo Seifert*

Prize Talk

- PRV I 13:15 – 13:45 HSZ 01
Seeing is believing: Nonlinear optics on ferroic materials
•*Manfred Fiebig (Laureate of the Stern-Gerlach-Medal 2023)*

Ceremonial Talk, Lunch Talks

- PSV IV 13:15 – 13:45 HSZ 02
Berufswege für Physiker in Elektrotechnik, Unternehmensberatung und IT
•*Philipp Dedié*
- PSV V 13:15 – 13:45 HSZ 03
Research Funding by the DFG – Insights into the Decision Process
•*Michael Mößle*

Ceremonial Session with Award Ceremony and Ceremonial Lecture

- PSV VI 15:30 – 17:15 HSZ 01
Die Star Trek Physik – Warum die Enterprise nur 158 kg wiegt und andere galaktische Erkenntnisse
•*Metin Tolan*

Symposium Physics of Fluctuating Paths (SYFP)

Invited Talks

- SYFP 1.1 09:30 – 10:00 HSZ 01
Time at which a stochastic process achieves its maximum
•*Satya Majumdar*

- SYFP 1.2 10:00 – 10:30 HSZ 01
 Fluctuations and molecule-spanning
 dynamics of single Hsp90 proteins on
 timescales from nanoseconds to days
 •*Thorsten Hugel*
- SYFP 1.3 10:30 – 11:00 HSZ 01
 Path reweighting for Langevin dynamics
 •*Bettina Keller*
- SYFP 1.4 11:15 – 11:45 HSZ 01
 Out-of-equilibrium dynamics of trapped
 Brownian particles
 •*Raul A. Rica*
- SYFP 1.5 11:45 – 12:15 HSZ 01
 Thermodynamics of Clocks
 •*Patrick Pietzonka*
- Symposium**
- SYFP 1 09:30 – 12:15 HSZ 01
 Physics of Fluctuating Paths

Biological Physics Division (BP)

Invited Talks

- BP 8.5 10:45 – 11:15 BAR Schö
 Microtubule Lattice Dynamics
 •*Laura Schaedel*
- BP 10.1 09:30 – 10:00 BAR 0106
 Protein evolution in sequence landscapes:
 from data to models and back
 •*Martin Weigt*

Sessions

- BP 8 09:30 – 13:00 BAR Schö
 Cell Mechanics I
- BP 9 09:30 – 12:30 TOE 317
 Active Matter III
- BP 10 09:30 – 12:15 BAR 0106
 Evolution and Origin of Life

BP 11 12:30 – 15:30 P1
Poster Session I

Chemical and Polymer Physics Division (CPP)

Invited Talks

- CPP 19.1 09:30 – 10:00 MER 02
Multiscale Model of Flow-Induced
Crystallization in Polymers
•*Gregory Rutledge*
- CPP 20.1 09:30 – 10:00 ZEU 255
Granular Matter Rheology – fluid-/solid-like
behavior and state-transitions
•*Stefan Luding*

Sessions

- CPP 18 09:30 – 13:00 GÖR 226
Organic Electronics and Photovoltaics I
- CPP 19 09:30 – 13:00 MER 02
Crystallization, Nucleation and Self-Assembly
- CPP 20 09:30 – 12:30 ZEU 255
Polymer and Molecular Dynamics, Friction
and Rheology
- CPP 21 09:30 – 12:30 TOE 317
Active Matter III
- CPP 22 09:30 – 12:15 POT 81
2D Materials III
- CPP 23 09:30 – 13:00 POT 112
Optical Properties
- CPP 24 10:00 – 13:00 MOL 213
Complex Fluids and Soft Matter I
- CPP 25 12:00 – 13:00 HSZ 201
Molecular Electronics and Photonics
- CPP 26 14:00 – 14:45 MER 02
Electrical, Dielectrical and Optical Properties
of Thin Films

CPP 27 14:00 – 15:00 ZEU 147
Glasses and Glass Transition I

Thin Films Division (DS)

Invited Talk

DS 5.1 09:30 – 10:00 SCH A 316
Operando infrared studies of confined water
and protons in MXene
•*Mailis Lounasvuori*

Sessions

DS 5 09:30 – 10:45 SCH A 316
2D Materials and their Heterostructures III

DS 6 10:00 – 11:00 SCH A 315
Thin Film Properties II

DS 7 11:15 – 12:30 SCH A 316
2D Materials and their Heterostructures IV

DS 8 11:30 – 12:45 SCH A 315
Thin Film Properties III

Dynamics and Statistical Physics Division (DY)

Invited Talk

DY 14.1 09:30 – 10:00 MOL 213
Unraveling structural and dynamical features
in glassy fluids using machine learning
•*Laura Filion*

Sessions

DY 12 09:30 – 13:15 HSZ 204
Nonequilibrium Quantum Many-Body
Systems I

DY 13 09:30 – 12:30 TOE 317
Active Matter III

DY 14 09:30 – 10:00 MOL 213
Invited Talk: Machine Learning and Complex
Fluids

DY 15	09:30 – 10:00	ZEU 260	Physics of Contagion Processes I
DY 16	10:00 – 13:00	MOL 213	Complex Fluids and Soft Matter
DY 17	10:00 – 12:45	ZEU 160	Machine Learning in Dynamics and Statistical Physics I
DY 18	10:00 – 12:15	ZEU 147	Nonlinear Dynamics, Synchronization and Chaos
DY 19	10:00 – 10:45	ZEU 260	Physics of Contagion Processes II
DY 20	11:00 – 12:15	ZEU 260	Networks: From Topology to Dynamics I
DY 21	14:00 – 15:15	MOL 213	Quantum Chaos and Coherent Dynamics
DY 22	14:00 – 15:15	ZEU 160	Machine Learning in Dynamics and Statistical Physics II
DY 23	14:00 – 15:15	ZEU 250	Statistical Physics: General II
DY 24	14:00 – 15:00	ZEU 147	Glasses and Glass Transition

Semiconductor Physics Division (HL)

Sessions

HL 14	09:30 – 12:15	POT 81	2D Materials III
HL 15	09:30 – 10:30	POT 361	Spin phenomena in semiconductors
HL 16	09:30 – 12:15	POT 151	Quantum dots: Transport
HL 17	09:30 – 12:45	POT 251	THz and MIR physics in semiconductors

- HL 18 09:30 – 13:00 POT 112
Optical Properties
- HL 19 09:30 – 13:00 GÖR 226
Organic Electronics and Photovoltaics I
- HL 20 10:30 – 12:45 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory I
- HL 21 11:00 – 11:45 POT 361
Thermal properties

Crystalline Solids and their Microstructure Division (KFM)

Invited Talk

- KFM 4.1 09:00 – 09:30 POT 51
Towards spatially resolved measurements of
thermal transport and electrocaloric effects
at the nanoscale in ferroelectric materials
•*Raymond McQuaid*

Sessions

- KFM 4 09:00 – 13:10 POT 51
Focus: Domains and Domainwalls in (Multi)
Ferroic II
- KFM 5 10:00 – 11:00 SCH A 315
Thin Film Properties
- KFM 6 17:00 – 19:00 P3
Poster

Magnetism Division (MA)

Invited Talk

- MA 14.1 09:30 – 10:00 HSZ 04
Antiferromagnetism-driven two-dimensional
topological nodal-point superconductivity
•*Roberto Lo Conte*

Sessions

- MA 12 09:30 – 11:30 HSZ 02
Skyrmions II

- MA 13 09:30 – 13:15 HSZ 03
Focus Session: New Perspectives for
Adiabatic Demagnetization Refrigeration in
the Kelvin and sub-Kelvin Range
- MA 14 09:30 – 11:45 HSZ 04
Surface Magnetism
- MA 15 09:30 – 11:50 HSZ 401
INNOMAG e.V. Prizes 2023 (Diplom-/Master
and Ph.D. Thesis)
- MA 16 09:30 – 12:00 HSZ 403
Magnonics
- MA 17 09:30 – 11:00 POT 6
Thin Films: Magnetic Anisotropy
- MA 18 15:00 – 17:15 HSZ 02
Functional Antiferromagnetism I
- MA 19 15:00 – 17:00 HSZ 04
Molecular Magnetism I
- MA 20 15:00 – 17:45 HSZ 401
Spintronics (other effects)
- MA 21 15:00 – 17:15 HSZ 403
Spin-Dependent Phenomena in 2D
- MA 22 15:00 – 16:15 POT 6
Terahertz Spintronics
- MA 23 17:00 – 19:00 P1
Poster Magnetism I

Metal and Material Physics Division (MM)

Invited Talks

- MM 13.1 09:30 – 10:00 SCH A 251
Exploring the Slow Dynamics of Interfaces
and Glasses via Markov State Models
•*Chad Sinclair*

- MM 15.1 10:15 – 10:45 SCH A 216
 Multiscale Quantum-Atomistic and Atomistic-Continuum Modelling of Crack Propagation
 •*James Kermode*
- Sessions**
- MM 13 09:30 – 10:00 SCH A 251
 Invited Talk: Sinclair
- MM 14 10:15 – 13:00 SCH A 251
 Development of Computational Methods:
 Thermodynamics and Local Chemistry,
 Electronic Structure
- MM 15 10:15 – 13:00 SCH A 216
 Topical Session: Fundamentals of Fracture –
 Atomistic Studies of Fracture
- MM 16 10:15 – 13:00 SCH A 215
 Energy Conversion
- MM 17 10:15 – 11:15 SCH A 118
 Phase Transformations: Microstructural
 Transformations
- MM 18 11:30 – 13:00 SCH A 118
 Transport in Materials: Metals, Alloys and
 Oxides
- MM 19 14:15 – 15:30 SCH A 251
 Development of Computational Methods:
 Simulation Methods – Theory
- MM 20 14:15 – 15:30 SCH A 216
 Topical Session: Fundamentals of Fracture
 – Microstructure Impact on Fracture
 (Experiments)
- MM 21 14:15 – 15:30 SCH A 215
 Materials for Storage and Conversion of
 Energy: Energy Conversion
- MM 22 14:15 – 15:45 SCH A 118
 Mechanical Properties and Alloy Design:
 Porous and Nanostructured Materials
- MM 23 18:15 – 20:00 P2/OG1+2
 Poster II

Surface Science Division (O)

Invited Talk, Topical Talks

- O 27.1 09:30 – 10:15 TRE Phy
Dive right in! Molecular insights into electrochemical surface science
•*Katrin F. Domke*
- O 31.1 10:30 – 11:00 GER 38
Ultra-low energy ion implantation of two-dimensional materials
•*Hans Hofsäss*
- O 33.1 10:30 – 11:00 REC C 213
Fermi liquids, Luttinger integrals, topological invariants ... and magnetic molecules
•*Rok Zitko*
- O 34.6 11:45 – 12:15 TRE Phy
Photoemission orbital tomography for excitons
•*Peter Puschnig*
- O 35.4 11:15 – 11:45 TRE Ma
Towards low-scaling GW calculations for 2D materials
•*Jan Wilhelm*

Sessions

- O 27 09:30 – 10:15 TRE Phy
Overview Talk Katrin Domke
- O 28 10:30 – 13:00 CHE 89
Organic Molecules on Inorganic Substrates III: Adsorption and Growth I
- O 29 10:30 – 13:00 CHE 91
Supported Nanoclusters: Structure, Reactions and Catalysis
- O 30 10:30 – 13:15 GER 37
2D Materials I: Electronic Structure
- O 31 10:30 – 12:45 GER 38
Focus Session: Ion Beam Interaction with Surfaces and 2D Materials III

- O 32 10:30 – 12:45 GER 39
Semiconductor Substrates
- O 33 10:30 – 13:00 REC C 213
Spins on Surfaces at the Atomic Scale III
- O 34 10:30 – 13:15 TRE Phy
Ultrafast Electron Dynamics at Surface and Interfaces III
- O 35 10:30 – 12:45 TRE Ma
Focus Session: Frontiers of Electronic-Structure Theory III
- O 36 18:00 – 20:00 P2/EG
Poster: 2D Materials II
- O 37 18:00 – 20:00 P2/EG
Poster: Ultrafast Electron Dynamics at Surface and Interfaces II
- O 38 18:00 – 20:00 P2/EG
Poster: Organic Molecules on Inorganic Substrates II
- O 39 18:00 – 20:00 P2/EG
Poster Session: Heterogeneous Catalysis and Surface Dynamics
- O 40 18:00 – 20:00 P2/EG
Poster: Semiconductor Substrates
- O 41 18:00 – 20:00 P2/EG
Poster: Supported Nanoclusters
- O 42 18:00 – 20:00 P2/EG
Poster: Nanostructures at Surfaces
- O 43 18:00 – 20:00 P2/EG
Poster: Plasmonics and Nanooptics I

Physics of Socio-economic Systems Division (SOE)

Invited Talk

- SOE 5.1 09:30 – 10:00 ZEU 260
Digital Pandemology – Is that physics?
•Dirk Brockmann

Sessions

- SOE 5 09:30 – 10:00 ZEU 260
Physics of Contagion Processes I
- SOE 6 10:00 – 10:45 ZEU 260
Physics of Contagion Processes II
- SOE 7 11:00 – 12:15 ZEU 260
Networks: From Topology to Dynamics I
- SOE 8 14:00 – 15:00 ZEU 260
Semantic Networks, Language and Culture

Low Temperature Physics Division (TT)

Invited Talks

- TT 19.1 09:30 – 10:00 HSZ 03
Self-cooling molecular spin quantum processors
•*Marco Evangelisti*
- TT 19.2 10:00 – 10:30 HSZ 03
Triangular rare-earth borates for milli-Kelvin
adiabatic demagnetization refrigeration
•*Philipp Gegenwart*
- TT 19.3 10:30 – 11:00 HSZ 03
A millikelvin scanning tunnelling microscope
in ultra-high vacuum with adiabatic
demagnetisation refrigeration
•*Ruslan Temirov*
- TT 19.4 11:15 – 11:45 HSZ 03
ADR cryostats in low temperature physics
and their applications
•*Doreen Wernicke*
- TT 19.5 11:45 – 12:15 HSZ 03
Frustrated dipolar materials for low-
temperature magnetic refrigeration
•*Mike Zhitomirsky*
- TT 22.6 11:00 – 11:30 HSZ 204
Higgs spectroscopy of superconductors in
nonequilibrium
•*Dirk Manske*

Sessions

- TT 19 09:30 – 13:15 HSZ 03
 Focus Session: New Perspectives for
 Adiabatic Demagnetization Refrigeration in
 the Kelvin and sub-Kelvin Range
- TT 20 09:30 – 13:00 HSZ 103
 Superconductivity: Tunnelling and Josephson
 Junctions
- TT 21 09:30 – 11:45 HSZ 201
 Correlated Electrons: Electronic Structure
 Calculations
- TT 22 09:30 – 13:15 HSZ 204
 Nonequilibrium Quantum Many-Body
 Systems I
- TT 23 09:30 – 13:00 HSZ 304
 Kagome Systems
- TT 24 09:30 – 12:15 POT 151
 Quantum Dots: Transport
- TT 25 12:00 – 13:00 HSZ 201
 Molecular Electronics and Photonics
- TT 26 14:00 – 15:30 HSZ 304
 Members' Assembly

Working Group on Equal Opportunities (AKC)**Invited Talks**

- AKC 1.1 10:30 – 11:30 ZEU 250
 The tragic destiny of Mileva Marić Einstein
 •*Pauline Gagnon*
- AKC 1.2 11:30 – 12:00 ZEU 250
 Physik-Projekt-Tage – Ein Workshop für
 Schülerinnen der Oberstufe
 •*Anna Benecke*
- AKC 1.3 12:00 – 12:30 ZEU 250
 Belonging – a key to success in STEM?!
 •*Barbara M. Gordalla*

Sessions

- AKC 1 10:30 – 12:30 ZEU 250
AKC
- AKC 2 12:30 – 13:30 ZEU 250
Women in Physics Lunch

Exhibition of Scientific Instruments and Literature

09:30 – 18:00 Foyer HSZ / Tent A

Job Market

11:30 – 12:30 HSZ 405

neocx GmbH & Trace Tronic GmbH

"Tracetrionic / neocx: Automate Everything – speeding up software testing in the automotive industry"

12:45 – 13:45 HSZ 405

Ritzenhoefer GmbH

"Transformation Consulting – #impact23"

14:00 – 15:00 HSZ 405

Wiley-VCH Verlag GmbH

"Physiker:innen im Wissenschaftsverlag"

Industrietag 2023

„Karrieren für Physikerinnen und Physiker in Industrie und Wirtschaft“

im Rahmen der DPG-Frühjahrstagung
an der Universität Dresden

„Physikerinnen und Physiker sind in unzähligen Branchen und Berufsgruppen gefragt. Sie werden gerne in Führungs- und Managementpositionen aufgrund hoher Problemlösekompetenz häufig eingesetzt.

Wie vielseitig die Möglichkeiten für Physikerinnen und Physiker sind, soll exemplarisch an fünf Karrieren gezeigt werden, die unterschiedlicher nicht sein können und alle eines gemeinsam haben: alle Vortragenden sind Physikerinnen oder Physiker.“

Mit Vorträgen von:

Prof. Dr. Joachim Rädler

CeNs (Centre For Nanoscience), LMU München

Dr. Diana Nanova

Customer Engineering Manager, Google Cloud

Dr. Udo Weigelt

LL.M., Patentanwalt und Partner in der Kanzlei Grünecker Patent- und Rechtsanwälte, München

Dr. Oliver de Haas

CEO und Gründer von evico, Dresden

Dr. Charles Majer

Digital Portfolio Expert, Siemens Healthineers

Mittwoch,
29. März
2023, 13:45 -
17:30 Uhr
IAP/HKB

Wednesday, March 29, 2023

Plenary Talks

- PLV V 08:30 – 09:15 HSZ 01
Advances in Ultrafast Electron Microscopy
•*Claus Ropers*
- PLV VI 14:00 – 14:45 HSZ 01
Topological defects in active and living matter
•*M Cristina Marchetti*
- PLV VII 14:00 – 14:45 HSZ 02
Ferroelectric and multiferroic domain walls for nanotechnology
•*Dennis Meier*

Prize Talk

- PRV II 13:15 – 13:45 HSZ 01
Towards chemical and optical band structure engineering in molecular-based heterostructures
•*Benjamin Stadtmueller (Laureate of the Gaede-Prize 2023)*

Lunch Talk, Discussion

- PSV VII 13:15 – 13:45 HSZ 02
Vom Physiker zum (erfolgreichen) Unternehmer der Plasway-Technologies GmbH
•*Stephan Wege*
- PSV VIII 13:15 – 13:45 HSZ 03
Vielfalt der Wissenschaftskommunikation
•*Ulrich Bleyer, Nicolas Wöhrl und Peter Kohl*

Symposium Ultrafast Excitation Pathways of Quantum Materials (SYUE)

Invited Talks

- SYUE 1.1 09:30 – 10:00 HSZ 01
Dynamics and control in quantum materials using multi-terahertz spectroscopy
•*Richard Averitt*

- SYUE 1.2 10:00 – 10:30 HSZ 01
 Accessing the nonthermal phonon populations in 2D materials with femtosecond electron diffuse scattering
 •*Hélène Seiler*
- SYUE 1.3 10:30 – 11:00 HSZ 01
 Exciting potentials – Exploring the realms of ultrafast phase transitions
 •*Laurenz Rettig*
- SYUE 1.4 11:15 – 11:45 HSZ 01
 Sub-cycle multidimensional spectroscopy of strongly correlated materials
 •*Olga Smirnova*
- SYUE 1.5 11:45 – 12:15 HSZ 01
 Witnessing many-body entanglement in light-driven quantum materials
 •*Matteo Mitrano*
- SYUE 1.6 12:15 – 12:45 HSZ 01
 Optical responses of photoexcited materials: from parametric amplification to photoinduced superconductivity
 •*Eugene Demler*
- Symposium**
- SYUE 1 09:30 – 12:45 HSZ 01
 Ultrafast Excitation Pathways of Quantum Materials

Symposium Topology in Quantum and Classical Physics – From Topological Insulators to Active Matter (SYQC)

Invited Talks

- SYQC 1.1 15:00 – 15:30 HSZ 01
 Topological magnetic whirls for computing
 •*Karin Everschor-Sitte*
- SYQC 1.2 15:30 – 16:00 HSZ 01
 Topological waves from solids to geo/astrophysical flows
 •*Pierre Delplace*

- SYQC 1.3 16:00 – 16:30 HSZ 01
 Topological Phase Transitions in Population Dynamics
 •*Erwin Frey*
- SYQC 1.4 16:45 – 17:15 HSZ 01
 Topological invariants protect robust chiral currents in active matter
 •*Evelyn Tang*
- SYQC 1.5 17:15 – 17:45 HSZ 01
 Topological defects in biological active matter
 •*Amin Doostmohammadi*
- Symposium**
- SYQC 1 15:00 – 17:45 HSZ 01
 Topology in Quantum and Classical Physics – from Topological Insulators to Active Matter

Biological Physics Division (BP)

Invited Talks

- BP 12.4 10:15 – 10:45 TOE 317
 Materials properties of bacterial biofilms.
 •*Cécile M. Bidan*
- BP 13.1 09:30 – 10:00 BAR 0106
 Biological signal processes across scales
 •*Steffen Rulands*
- BP 16.1 11:15 – 11:45 BAR 0106
 Systems biophysics of bacterial response to cell wall-targeting antibiotics
 •*Rosalind Allen*

Sessions

- BP 12 09:30 – 13:00 TOE 317
 Biopolymers and Biomaterials
- BP 13 09:30 – 11:00 BAR 0106
 Signaling, Biological Networks

- BP 14 09:30 – 13:00 ZEU 160
 Focus Session: From Inter-individual
 Variability to Heterogeneous Group Dynamics
 and Disorder in Active Matter
- BP 15 10:30 – 12:15 BAR Schö
 Tissue Mechanics II
- BP 16 11:15 – 13:00 BAR 0106
 Systems Biophysics
- BP 17 15:00 – 17:30 BAR 0106
 Protein Structure and Dynamics
- BP 18 15:00 – 16:30 ZEU 250
 Biologically Inspired Statistical Physics
- BP 19 16:30 – 18:00 MER 02
 Biopolymers, Biomaterials and Bioinspired
 Functional Materials
- BP 20 18:00 – 19:00 BAR Schö
 Members' Assembly

Chemical and Polymer Physics Division (CPP)

Invited Talk

- CPP 29.1 09:30 – 10:00 MER 02
 Imaging mineral-water interfaces with atomic
 force microscopy
 •*Angelika Kühnle*

Sessions

- CPP 28 09:30 – 12:30 GÖR 226
 Molecular Electronics and Excited State
 Properties
- CPP 29 09:30 – 12:45 MER 02
 Interfaces and Thin Films
- CPP 30 09:30 – 13:00 TOE 317
 Biopolymers and Biomaterials I
- CPP 31 09:30 – 13:00 ZEU 160
 Focus Session: From Inter-individual
 Variability to Heterogeneous Group Dynamics
 and Disorder in Active Matter

- CPP 32 09:30 – 12:30 POT 81
2D Materials IV
- CPP 33 09:30 – 13:00 POT 251
Perovskite and photovoltaics II
- CPP 34 10:00 – 13:00 ZEU 147
Wetting, Droplets and Microfluidics I
- CPP 35 11:00 – 13:00 P1
Poster Session II
- CPP 36 15:00 – 17:30 GÖR 226
Organic Electronics and Photovoltaics II
- CPP 37 15:00 – 16:15 MER 02
Nanostructures, Nanostructuring and
Nanosized Soft Matter
- CPP 38 15:00 – 18:15 MOL 213
Microswimmers and Fluid Physics of Life
- CPP 39 15:00 – 18:15 ZEU 160
Focus Session: Physics of Fluctuating Paths
- CPP 40 15:00 – 17:30 GER 37
2D Materials V: Growth, Structure and
Substrate Interaction
- CPP 41 16:30 – 18:00 MER 02
Biopolymers, Biomaterials and Bioinspired
Functional Materials II

Thin Films Division (DS)

Invited Talk

- DS 9.1 09:30 – 10:00 SCH A 316
Flüssigphasen-Elektrochemie im
Ultrahochvakuum unter XPS-Kontrolle
•*Frank Endres*

Sessions

- DS 9 09:30 – 10:30 SCH A 316
Layer Properties I
- DS 10 11:00 – 12:15 SCH A 316
Layer Properties II

- DS 11 11:00 – 12:15 SCH A 315
Thin Film Application
- DS 12 17:00 – 19:00 P3
Poster

Dynamics and Statistical Physics Division (DY)

Invited Talks

- DY 25.1 09:30 – 10:00 MOL 213
Many-body localization from Hilbert- and
real-space points of view
•*Ivan Khaymovich*
- DY 26.1 09:30 – 10:00 ZEU 160
More is different: High-throughput 3D tracking
reveals bacterial navigation strategies
•*Katja Taute*
- DY 26.2 10:00 – 10:30 ZEU 160
Variability and heterogeneity in natural swarms
•*Gil Ariel*
- DY 26.5 11:15 – 11:45 ZEU 160
Superstatistical Analysis and Modelling of
Complex Dynamical Systems
•*Claus Metzner*
- DY 27.1 09:30 – 10:00 ZEU 250
Evolution in changing environments and
driven disordered systems
•*Joachim Krug*

Sessions

- DY 25 09:30 – 13:00 MOL 213
Many-Body Quantum Dynamics
- DY 26 09:30 – 13:00 ZEU 160
Focus Session: From Inter-individual
Variability to Heterogeneous Group Dynamics
and Disorder in Active Matter
- DY 27 09:30 – 13:00 ZEU 250
Statistical Physics: Far From Equilibrium I

- DY 28 09:30 – 11:45 ZEU 260
Focus Session: Critical Transitions in Society,
Economy, and Nature
- DY 29 10:00 – 13:00 ZEU 147
Wetting, Droplets and Microfluidics
- DY 30 15:00 – 18:30 HSZ 204
Nonequilibrium Quantum Many-Body
Systems II
- DY 31 15:00 – 18:15 MOL 213
Microswimmers and Fluid Physics of Life
- DY 32 15:00 – 18:15 ZEU 160
Focus Session: Physics of Fluctuating Paths
- DY 33 15:00 – 16:30 ZEU 250
Biologically Inspired Statistical Physics
- DY 34 16:45 – 18:15 ZEU 250
Statistical Physics: Far From Equilibrium II

Semiconductor Physics Division (HL)

Invited Talks

- HL 23.1 09:30 – 10:00 POT 361
Vertical-cavity surface-emitting lasers – this
is the way
•*Å. Haglund*
- HL 23.2 10:00 – 10:30 POT 361
Towards GaN-based diode lasers with narrow
linewidth and high reliability
•*Sven Einfeldt*
- HL 23.3 10:30 – 11:00 POT 361
Use of wafer patterning for new
functionalities of InGaN light emitters
•*Anna Kafar*
- HL 25.1 09:30 – 10:00 POT 251
Interfaces in perovskite optoelectronics:
role of energy level alignment and interface
chemistry
•*Selina Olthof*

- HL 27.1 15:00 – 15:30 POT 81
 experimentamus! Forschendes Lernen von
 Physik und Chemie in der Grundschule
 •*Sebastian Schlücker*
- HL 27.4 16:00 – 16:30 POT 81
 Under the Microscope – spotlighting
 materials and nano science
 •*Svenja Lohmann*
- HL 27.5 17:00 – 17:30 POT 81
 Phyphox – A pocketful of physics
 •*Christoph Stampfer*
- HL 27.8 18:00 – 18:30 POT 81
 Physics for school and the public at the LMU
 •*Dr. Cecilia Scorza-Lesch*
- HL 28.1 15:00 – 15:30 POT 361
 Fabrication of AlGaIn-based UV-B laser
 diodes on lattice-relaxed high-quality AlGaIn
 •*Motoaki Iwaya*
- HL 28.2 15:30 – 16:00 POT 361
 Breakthrough technologies to realize
 room-temperature continuous-wave deep-
 ultraviolet laser diodes
 •*Maki Kushimoto*
- Sessions**
- HL 22 09:30 – 12:30 POT 81
 2D Materials IV
- HL 23 09:30 – 12:15 POT 361
 Focus Session: Breakthroughs in wide-
 bandgap semiconductor laser diodes I
- HL 24 09:30 – 13:15 POT 151
 Quantum dots: Optics
- HL 25 09:30 – 13:00 POT 251
 Perovskite and photovoltaics II
- HL 26 10:30 – 13:00 TRE Ma
 Focus Session: Frontiers of Electronic-
 Structure Theory IV

- HL 27 15:00 – 18:30 POT 81
Focus Session:
Wissenschaftskommunikation / Outreach
- HL 28 15:00 – 16:45 POT 361
Focus Session: Breakthroughs in wide-
bandgap semiconductor laser diodes II
- HL 29 15:00 – 18:00 POT 151
Materials and devices for quantum
technology I
- HL 30 15:00 – 17:00 POT 251
Quantum transport and quantum Hall effects II
- HL 31 15:00 – 17:30 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory V
- HL 32 15:00 – 17:30 GÖR 226
Organic Electronics and Photovoltaics II
- HL 33 17:00 – 19:00 P1
Poster II

Crystalline Solids and their Microstructure Division (KFM)

Invited Talks

- KFM 7.1 09:00 – 09:30 POT 51
Novel device integration – combining
bottom-up and topdown approaches
•*Artur Erbe*
- KFM 7.6 11:05 – 11:35 POT 51
4D meso-scale electronics for next
generation medical tools and electronic skins
•*Daniil Karnauschenko*

Sessions

- KFM 7 09:00 – 12:35 POT 51
Focus: High-resolution Lithography and 3D
Patterning
- KFM 8 14:00 – 17:15 POT 51
Diamond and related dielectric materials

KFM 9 09:00 – 13:15 POT 106
Microscopy and Tomography with X-ray
Photons, Electrons, Ions and Positron

Magnetism Division (MA)

Invited Talks

- MA 25.1 09:30 – 10:00 HSZ 04
MAGNOTHERM – One way to start a deep
tech spin-off from research
•*Max Fries*
- MA 25.2 10:00 – 10:30 HSZ 04
Spin-Ion Technologies: taking the research
from a lab to a start-up company
•*Dafiné Ravelosona*
- MA 25.3 10:30 – 11:00 HSZ 04
MagREEsources: the green Rare Earth Magnet
company
•*Sophie Rivoirard*
- MA 25.4 11:00 – 11:30 HSZ 04
THATec Innovation we automate your lab
•*Thomas Sebastian*
- MA 25.5 11:30 – 12:00 HSZ 04
Kiutra: Magnetic refrigeration for science and
technology
•*Alexander Regnat*
- MA 26.1 09:30 – 10:00 HSZ 401
The self-induced spin glass: the perplexing
magnetism of elemental neodymium
•*Alexander Khajetoorians*
- MA 30.1 15:00 – 15:30 HSZ 02
Femto- phono- magnetism
•*Sangeeta Sharma*
- MA 30.2 15:30 – 16:00 HSZ 02
Spin-switchable molecules in interaction with
their environment.
•*Cyrille Barreteau*

- MA 30.3 16:15 – 16:45 HSZ 02
 Yep, real photodoping.
 •*Julia Stähler*
- MA 30.4 16:45 – 17:15 HSZ 02
 Probing ultrafast magnetization thanks to
 ultrashort soft X-ray pulses
 •*Emmanuelle Jal*
- Sessions**
- MA 24 09:30 – 11:00 HSZ 02
 Molecular Magnetism II
- MA 25 09:30 – 12:30 HSZ 04
 Focus Session: Startups in Magnetism
- MA 26 09:30 – 11:30 HSZ 401
 Non-Skyrmionic Magnetic Textures II
- MA 27 09:30 – 11:30 HSZ 403
 Electron Theory of Magnetism and
 Correlations
- MA 28 09:30 – 10:45 POT 6
 Bulk Materials: Soft and Hard Permanent
 Magnets
- MA 29 11:30 – 12:45 HSZ 02
 Neuromorphic Magnetism / Magnetic Logic
- MA 30 15:00 – 18:00 HSZ 02
 PhD Focus Session: Non-equilibrium
 dynamics in theory and experiment
- MA 31 15:00 – 17:15 HSZ 04
 Functional Antiferromagnetism II
- MA 32 15:00 – 16:30 HSZ 401
 Magnetic Imaging Techniques I
- MA 33 15:00 – 17:15 HSZ 403
 Frustrated Magnets I

Metal and Material Physics Division (MM)

Invited Talks, Topical Talks

- MM 24.1 09:30 – 10:00 SCH A 251
Characterization of hydrogen effect on mechanical properties of metals at different length scales
•*Afrooz Barnoush*
- MM 30.1 15:00 – 15:30 SCH A 251
Direct observations of grain boundary phase transformations in metallic alloys
•*Christian Liebscher*
- MM 32.1 15:45 – 16:15 SCH A 216
Defect phase diagrams: Concepts, computational approaches and applications
•*Jörg Neugebauer*
- MM 32.8 18:00 – 18:30 SCH A 216
Towards a Rigorous Theory of Grain Boundary Segregation in Polycrystals
•*Christopher Schuh*

Sessions

- MM 24 09:30 – 10:00 SCH A 251
Invited Talk: Barnoush
- MM 25 10:15 – 11:30 SCH A 251
Development of Computational Methods: Crystal Structure and Properties
- MM 26 10:15 – 13:00 SCH A 216
Interface Controlled Properties and Nanomaterials: Grain Boundaries and Stability, Spectroscopy and Interatomic Potentials
- MM 27 10:15 – 13:00 SCH A 215
Hydrogen in Materials
- MM 28 10:15 – 12:45 SCH A 118
Liquid and Amorphous Metals
- MM 29 11:45 – 13:00 SCH A 251
Data Driven Materials Science: Big Data and Work Flows – Electronic Structure

- MM 30 15:00 – 15:30 SCH A 251
Invited Talk: Liebscher
- MM 31 15:45 – 18:30 SCH A 251
Data Driven Materials Science: Big Data and
Work Flows – Machine Learning
- MM 32 15:45 – 18:30 SCH A 216
Topical Session: Defect Phases I
- MM 33 15:45 – 18:00 SCH A 215
Topical Session: Fundamentals of Fracture –
Amorphous Metals
- MM 34 18:45 – 19:45 SCH A 251
Members' Assembly

Surface Science Division (O)

Invited Talk, Topical Talks

- O 44.1 09:30 – 10:15 TRE Phy
Spins on Surfaces: A Gateway to the
Quantum World
•*Christian R. Ast*
- O 45.2 10:45 – 11:15 CHE 89
Single-molecule reactions performed and
characterized using atomic force microscopy
•*Leo Gross*
- O 48.1 10:30 – 11:00 GER 38
Surface functionalization of semiconductors:
Introducing spectroscopic labels, monolayer
control for ultra-shallow doping, and
providing surface passivation for atomically-
precise processes
•*Andrew Teplyakov*
- O 48.3 11:15 – 11:45 GER 38
Growth of organic monolayers on Si(111)
•*Martin Franz*
- O 52.4 11:15 – 11:45 TRE Phy
Modeling and Design of Single-Atom Alloy
Catalysts
•*Mie Andersen*

- O 53.2 10:45 – 11:15 TRE Ma
 TRES: an integrated HPC software platform
 for quantum Monte Carlo calculations
 •*Claudia Filippi*
- O 54.1 15:00 – 15:30 CHE 89
 Peering into interfacial water by qPlus-based
 atomic force microscopy
 •*Ying Jiang*
- O 54.5 16:15 – 16:45 CHE 89
 AFM with the qPlus sensor: An ideal tool for
 oxide surface science
 •*Ulrike Diebold*
- O 55.6 16:15 – 16:45 CHE 91
 Towards Understanding and Controlling
 On-Surface Reactions and Self-Assembly
 Mechanisms
 •*Daniel Ebeling*
- O 57.1 15:00 – 15:30 GER 38
 Incorporation of arsenic into silicon (001)
 and germanium (001) for atomic-scale
 device fabrication.
 •*Steven R. Schofield*
- O 57.3 15:45 – 16:15 GER 38
 Semiconductor surface chemistry towards
 hybrid interfaces with ab initio approaches
 •*Ralf Tonner-Zech*
- O 58.3 15:30 – 16:00 WIL A317
 Phase-locked photon-electron interaction
 without a laser
 •*Nahid Talebi*
- O 59.1 15:00 – 15:30 REC C 213
 Interplay of Inversion Symmetry Breaking and
 Spin-Orbit Coupling
 •*Maximilian Ünzelmann*
- O 61.5 16:15 – 16:45 TRE Ma
 Challenges in modelling correlated electronic
 matter
 •*Roser Valenti*

Sessions

- O 44 09:30 – 10:15 TRE Phy
Overview Talk Christian Ast
- O 45 10:30 – 12:30 CHE 89
Focus Session: Scanning Probe Microscopy
with Quartz Sensors I
- O 46 10:30 – 12:15 CHE 91
Electron-Driven Processes at Surfaces and
Interfaces
- O 47 10:30 – 13:00 GER 37
2D Materials II: Growth, Structure and
Substrate Interaction I
- O 48 10:30 – 12:15 GER 38
Focus Session: Semiconductor Surface
Chemistry – from Reaction Mechanisms to
Well-Ordered Interfaces I
- O 49 10:30 – 12:45 WIL A317
Plasmonics and Nanooptics I: Fabrication
and Application
- O 50 10:30 – 11:30 REC C 213
Spins on Surfaces at the Atomic Scale IV
- O 51 11:30 – 13:00 REC C 213
Surface Magnetism
- O 52 10:30 – 12:45 TRE Phy
Heterogeneous Catalysis and Surface Dynamics I
- O 53 10:30 – 13:00 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory IV
- O 54 15:00 – 17:30 CHE 89
Focus Session: Scanning Probe Microscopy
with Quartz Sensors II
- O 55 15:00 – 17:45 CHE 91
Organic Molecules on Inorganic Substrates
IV: Adsorption and Growth II
- O 56 15:00 – 17:30 GER 37
2D Materials III: Growth, Structure and
Substrate Interaction II

- O 57 15:00 – 17:00 GER 38
Focus Session: Semiconductor Surface
Chemistry – from Reaction Mechanisms to
Well-Ordered Interfaces II
- O 58 15:00 – 17:30 WIL A317
Plasmonics and Nanooptics II: Light-Matter
Interaction and Spectroscopy I
- O 59 15:00 – 17:45 REC C 213
Electronic Structure of Surfaces I
- O 60 15:00 – 18:00 TRE Phy
Solid-Liquid Interfaces I: Structure and
Spectroscopy
- O 61 15:00 – 17:30 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory V
- O 62 15:00 – 18:30 POT 81
Focus Session:
Wissenschaftskommunikation / Outreach
- O 63 18:00 – 20:00 P2/EG
Poster: Data Management
- O 64 18:00 – 20:00 P2/EG
Poster: Graphene
- O 65 18:00 – 20:00 P2/EG
Poster: Topology and Symmetry-Protected
Materials
- O 66 18:00 – 20:00 P2/EG
Poster: Scanning Probe Microscopy with
Quartz Sensors
- O 67 18:00 – 20:00 P2/EG
Poster: Electronic Structure of Surfaces
- O 68 18:00 – 20:00 P2/EG
Poster: Oxide and Insulator Surfaces
- O 69 18:00 – 20:00 P2/EG
Poster: Solid-Liquid Interfaces
- O 70 18:00 – 20:00 P2/EG
Poster: Plasmonics and Nanooptics II

Physics of Socio-economic Systems Division (SOE)

Topical Talks

- SOE 9.1 09:30 – 10:00 ZEU 260
Many universality classes in an interface model restricted to non-negative heights
•*Peter Grassberger*
- SOE 9.2 10:00 – 10:30 ZEU 260
Nonequilibrium phase transitions and critical behavior in networks
•*Eckehard Schöll*
- SOE 9.3 10:45 – 11:15 ZEU 260
Critical transition to monsoon: statistical physics principles of monsoon forecasting
•*Elena Surovyatkina*

Sessions

- SOE 9 09:30 – 11:45 ZEU 260
Focus Session: Critical Transitions in Society, Economy, and Nature
- SOE 10 15:00 – 16:30 ZEU 260
Traffic Dynamics, Urban and Regional Systems I
- SOE 11 16:45 – 18:15 ZEU 260
Traffic Dynamics, Urban and Regional Systems II
- SOE 12 18:30 – 19:30 ZEU 260
Members' Assembly

Low Temperature Physics Division (TT)

Invited Talks

- TT 27.1 09:30 – 10:00 HSZ 03
Superconducting diode effect in Rashba superlattice
•*Teruo Ono*
- TT 27.2 10:00 – 10:30 HSZ 03
Quasiparticle-based and Cooper-pair based superconducting diodes
•*Maria Spies*

- TT 27.3 10:30 – 11:00 HSZ 03
Non-reciprocal superconductivity and the field free Josephson diode
•*Mazhar Ali*
- TT 28.6 10:45 – 11:15 HSZ 103
Studying the Fulde-Ferrell-Larkin-Ovchinnikov order parameter in quasi-2D organic superconductors
•*Tommy Kotte*
- TT 35.1 15:00 – 15:30 HSZ 03
Strongly correlated excitons in atomic double layers
•*Phuong Nguyen*
- TT 35.2 15:30 – 16:00 HSZ 03
The Quantum Twisting Microscope
•*Shahal Ilani*
- TT 35.3 16:00 – 16:30 HSZ 03
Light-driven phenomena in two-dimensional and correlated quantum materials
•*Angel Rubio*
- TT 35.4 16:45 – 17:15 HSZ 03
Cascade of transitions in twisted and non-twisted graphene layers within the van Hove scenario
•*Laura Classen*
- TT 35.5 17:15 – 17:45 HSZ 03
Topology and strong correlation: From twisted bilayer graphene to the boundary zeros of Mott insulators
•*Giorgio Sangiovanni*
- TT 39.1 15:00 – 15:30 HSZ 304
Sensing and control of MHz photons with microwave photon-pressure
•*Daniel Bothner*

Sessions

- TT 27 09:30 – 13:00 HSZ 03
Focus Session: Unconventional Transport Phenomena in Low-Dimensional Superconducting Heterostructures
- TT 28 09:30 – 11:15 HSZ 103
Unconventional Superconductors
- TT 29 09:30 – 13:15 HSZ 201
Frustrated Magnets: General
- TT 30 09:30 – 13:00 HSZ 204
Complex Oxides
- TT 31 09:30 – 12:45 HSZ 304
Topology: Majorana Physics
- TT 32 09:30 – 12:30 GLQR 226
Molecular Electronics and Excited State Properties
- TT 33 09:30 – 13:00 MOL 213
Many-Body Quantum Dynamics
- TT 34 11:30 – 13:00 HSZ 103
Fe-based Superconductors
- TT 35 15:00 – 18:15 HSZ 03
Focus Session: Correlations in Moiré Quantum Matter I
- TT 36 15:00 – 17:45 HSZ 103
Topological Insulators
- TT 37 15:00 – 18:30 HSZ 201
Ruthenates
- TT 38 15:00 – 18:30 HSZ 204
Nonequilibrium Quantum Many-Body Systems II
- TT 39 15:00 – 18:15 HSZ 304
Superconducting Electronics
- TT 40 15:00 – 18:30 POT 81
Focus Session:
Wissenschaftskommunikation / Outreach

- TT 41 15:00 – 17:00 POT 251
Quantum Transport and Quantum Hall Effects II
- TT 42 15:00 – 18:00 P2/OG2
Poster: Correlated Electrons I
- TT 43 15:00 – 18:00 P2/OG3
Poster: Correlated Electrons II

Arbeitskreis Industrie und Wirtschaft (AIW)

Invited Talks

- AIW 1.1 13:45 – 14:15 KRO 1.11
Als Physiker*in Krankenhäuser digitalisieren?
Klar doch!
•*Charles Ludwig Majer*
- AIW 1.2 14:15 – 14:45 KRO 1.11
From the Lab to Customer Engineering at
Google – the Unconventional Career Path of
an Experimental Physicist
•*Diana Nanova*
- AIW 1.3 14:45 – 15:15 KRO 1.11
Von der Promotion zur eigenen Firma
•*Oliver de Haas*
- AIW 2.1 15:30 – 16:00 KRO 1.11
How start-ups and alumni networks enrich
young scientist's career options
•*Joachim Rädler*
- AIW 2.2 16:00 – 16:30 KRO 1.11
Karrieremöglichkeiten für Physikerinnen und
Physiker auf dem Gebiet des Gewerblichen
Rechtsschutzes
•*Udo Weigelt*

Sessions

- AIW 1 13:45 – 15:15 KRO 1.11
AIW Industrietag I
- AIW 2 15:30 – 16:30 KRO 1.11
AIW Industrietag II

AIW 3 16:45 – 17:30 KRO 1.11

Podiumsdiskussion

AIW 4 17:30 – 18:30 KRO 1.11

Gemütlicher Ausklang mit Networking bei
Bier & Brezn

Exhibition of Scientific Instruments and Literature

09:30 – 18:00 Foyer HSZ / Tent A

Job Market

11:30 – 12:30 HSZ 405

Bundesamt für Sicherheit in der
Informationstechnik

*“Aus der Physik in die IT-Sicherheit – Karriere
beim BSI”*

12:45 – 13:45 HSZ 405

Trumpf Lasersystems for Semiconductor
Manufacturing GmbH

*“TRUMPF Lasersystems for EUV Lithography –
Enabler für das digitale Zeitalter gesucht”*

14:00 – 15:00 HSZ 405

Basycon Unternehmensberatung GmbH

“Aus der Wissenschaft in die Beratung”

15:15 – 16:15 HSZ 405

ZEISS

*“Am Herzschlag der Digitalisierung:
Forschung & Entwicklung in der
Halbleiterfertigungstechnik”*

Video Contest:

Physics in the Future

27 – 31 March 2023

What are the major challenges for physics in the future?
Which research areas will come into focus?
Or will time travel even be possible?



Join in and win!

What will the physics of the future look like and what will it be used for? Share your vision with us!

The aim of this video competition is to bring together these different ideas for the future of physics. Even without a Police Box or a converted DeLorean, the competition promises numerous exciting answers. Tell us your vision – only time will tell if it comes true.

More information:
www.skm23.dpg-tagungen.de/veranstaltungen/wettbewerb

Thursday, March 30, 2023

Plenary Talks

- PLV VIII 08:30 – 09:15 HSZ 01
Nanomechanics: Tunes of the nanoguitar
•*Eva Weig*
- PLV IX 14:00 – 14:45 HSZ 01
Metal Halide Perovskites for Photovoltaic Applications
•*Laura Herz*
- PLV X 14:00 – 14:45 HSZ 02
Single-electron-spin-resonance detection by microwave photon counting
•*Patrice Bertet*

Prize Talk

- PRV III 13:15 – 13:45 HSZ 01
High-lying excitons and excitonic quantum interference in 2D semiconductors
•*Kai-Qiang Lin (Laureate of the Walter-Schottky-Prize 2023)*

Lunch Talk, Discussion

- PSV IX 13:15 – 13:45 HSZ 02
Working as a Physicist in the Microelectronic Industry
•*Matthias U. Lehr*
- PSV X 13:15 – 13:45 HSZ 03
NFDI and FAIR research data: benefit or burden?
•*Martin Aeschlimann, Laurenz Rettig, Heiko B. Weber*

Symposium Real-Time Measurements of Quantum Dynamics (SYQD)

Invited Talks

- SYQD 1.1 09:30 – 10:00 HSZ 01
Real-time measurement and control of spin dynamics in quantum dots
•*Seigo Tarucha*

- SYQD 1.2 10:00 – 10:30 HSZ 01
Quantum Dot arrays for Quantum Information Transfer
•*Gloria Platero*
- SYQD 1.3 10:30 – 11:00 HSZ 01
Optical Detection of Real-Time Quantum Dynamics in Quantum Dots
•*Martin Geller*
- SYQD 1.4 11:30 – 12:00 HSZ 01
Cooper Pair Splitting in Real-Time
•*Christian Flindt*
- SYQD 1.5 12:00 – 12:30 HSZ 01
Trajectory-based detection in stochastic and quantum thermodynamics
•*Jukka Pekola*

Symposium

- SYQD 1 09:30 – 12:30 HSZ 01
Real-Time Measurements of Quantum Dynamics

Symposium Topological Superconductor-Magnet Heterostructures (SYTS)

Invited Talks

- SYTS 1.1 15:00 – 15:30 HSZ 01
Blending of superconductivity and magnetism via topological solitons
•*Christos Panagopoulos*
- SYTS 1.2 15:30 – 16:00 HSZ 01
Topological landscaping in magnet-superconductor heterostructures
•*Sebastián A. Díaz*
- SYTS 1.3 16:00 – 16:30 HSZ 01
Experimental study of minigaps and end states in bottom-up designed multi-orbital Shiba chains
•*Jens Wiebe*

- SYTS 1.4 16:45 – 17:15 HSZ 01
Quantum spins and hybridization in artificially-constructed chains of magnetic adatoms on superconducting 2H-NbSe_2
•*Katharina J. Franke*
- SYTS 1.5 17:15 – 17:45 HSZ 01
Braiding of Majorana zero modes
•*Stephan Rachel*
- Symposium**
- SYTS 1 15:00 – 17:45 HSZ 01
Topological Superconductor-Magnet Heterostructures

Biological Physics Division (BP)

Invited Talks

- BP 21.7 11:15 – 11:45 BAR Schö
Visualizing the inner life of microbes
•*Ulrike Endesfelder*
- BP 22.5 10:30 – 11:00 TOE 317
Statistical Physics of Spatially Organized Catalytic Particles
•*Ulrich Gerland*
- BP 23.1 09:30 – 10:00 BAR 0106
Conformational dynamics of SARS-CoV-2 spike protein modulates the binding affinity to ACE2
•*Felix Rico*
- BP 26.1 15:00 – 15:30 TOE 317
Decoding Molecular Plasticity in the Dark Proteome of the Nuclear Transport Machinery
•*Edward Lemke*

Sessions

- BP 21 09:30 – 13:00 BAR Schö
Bioimaging
- BP 22 09:30 – 13:00 TOE 317
Statistical Physics of Biological Systems I

BP 23	09:30 – 13:00	BAR 0106	Single Molecule Biophysics
BP 24	09:30 – 13:00	ZEU 160	Active Matter IV
BP 25	15:00 – 17:30	BAR Schö	Cell Mechanics II
BP 26	15:00 – 17:30	TOE 317	Focus Session mRNA Physics
BP 27	15:00 – 17:30	BAR 0106	Computational Biophysics II
BP 28	18:00 – 20:00	P2/EG	Poster Session II

Chemical and Polymer Physics Division (CPP)

Invited Talk

CPP 53.1	15:00 – 15:30	ZEU 255	Aqueous nanoclusters govern ionic transport in dense polymer membranes <i>•Joachim Dzubiella</i>
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Sessions

CPP 42	09:00 – 12:35	POT 51	Battery Materials
CPP 43	09:30 – 12:30	GÖR 226	Organic Electronics and Photovoltaics III
CPP 44	09:30 – 13:00	MER 02	Wetting, Fluidics and Liquids at Interfaces and Surfaces II
CPP 45	09:30 – 12:00	ZEU 255	Emerging Topics in Chemical and Polymer Physics, New Instruments and Methods
CPP 46	09:30 – 13:00	ZEU 160	Active Matter IV
CPP 47	09:30 – 12:00	POT 81	2D Materials VI

- CPP 48 10:15 – 13:15 SCH A 251
Data Driven Materials Science: Big Data
and Work Flows – Microstructure-Property-
Relationships
- CPP 49 10:30 – 12:45 GER 37
2D Materials VII: Heterostructures
- CPP 50 12:15 – 13:00 ZEU 255
Glasses and Glas Transition II
- CPP 51 15:00 – 17:15 GÖR 226
Hybrid and Perovskite Photovoltaics III
- CPP 52 15:00 – 16:15 MER 02
Wetting, Fluidics and Liquids at Interfaces
and Surfaces III
- CPP 53 15:00 – 17:45 ZEU 255
Charged Soft Matter, Polyelectrolytes and
Ionic Liquid
- CPP 54 16:30 – 17:45 MER 02
2D Materials VIII
- CPP 55 18:00 – 19:00 MER 02
Members' Assembly

Thin Films Division (DS)

Invited Talks

- DS 13.1 09:30 – 10:00 SCH A 316
Towards Catalytic Applications of Infrared
Laser Polarimetry
•*Andreas Furchner*
- DS 15.1 11:15 – 11:45 SCH A 316
In-Situ Optical Investigation of
Electrochemically Induced Conformational
Changes at Solid Liquid Interfaces: A Source
of new Electronic States
•*Christoph Cobet*

- DS 17.1 16:15 – 16:45 SCH A 316
 In-situ optical spectroscopy on electrochemical interfaces: From OER electrocatalysts to „smart“ electro-switchable interfaces
 •*Martin Rabe*
- DS 17.2 16:45 – 17:15 SCH A 316
 The physics of low symmetry semiconductors: Gallium oxide for the future of green energy as example
 •*Mathias Schubert*
- DS 17.3 17:15 – 17:45 SCH A 316
 Spectroscopic ellipsometry studies of optical constants in highly excited semiconductors
 •*Stefan Zollner*

Sessions

- DS 13 09:30 – 11:00 SCH A 316
 Optical Analysis of Thin Films I
- DS 14 09:30 – 11:15 SCH A 315
 Thin Oxides and Oxide Layers
- DS 15 11:15 – 12:45 SCH A 316
 Optical Analysis of Thin Films II
- DS 16 11:30 – 13:00 SCH A 315
 Thermoelectric and Phase Change Materials; Layer Deposition
- DS 17 16:15 – 17:45 SCH A 316
 Optical Analysis of Thin Films III
- DS 18 18:00 – 19:00 SCH A 315
 Members' Assembly

Dynamics and Statistical Physics Division (DY)

Invited Talks

- DY 37.6 11:00 – 11:30 MOL 213
 Power law error growth rates – a dynamical mechanism for a strictly finite prediction horizon in weather forecasts
 •*Holger Kantz*

- DY 38.1 09:30 – 10:00 ZEU 160
 Acoustically propelled nano- and microparticles: From fundamentals to applications
•Raphael Wittkowski
Sessions
- DY 35 09:30 – 13:00 TOE 317
 Statistical Physics of Biological Systems I
- DY 36 09:30 – 13:00 MER 02
 Wetting, Fluidics and Liquids at Interfaces and Surfaces I
- DY 37 09:30 – 12:00 MOL 213
 Data Analytics of Complex Dynamical Systems
- DY 38 09:30 – 13:00 ZEU 160
 Active Matter IV
- DY 39 09:30 – 10:00 ZEU 260
 Networks: From Topology to Dynamics II
- DY 40 10:00 – 12:30 ZEU 250
 Stochastic Thermodynamics
- DY 41 10:00 – 10:45 ZEU 260
 Networks: From Topology to Dynamics III
- DY 42 13:00 – 16:00 P1
 Poster: Active Matter, Soft Matter, Fluids
- DY 43 13:00 – 16:00 P1
 Poster: Quantum Dynamics and Many-Body Systems
- DY 44 13:00 – 16:00 P1
 Poster: Statistical Physics
- DY 45 13:00 – 16:00 P1
 Poster: Nonlinear Dynamics, Pattern Formation and Networks
- DY 46 13:00 – 16:00 P1
 Poster: Machine Learning and Data Analytics
- DY 47 15:00 – 16:15 MER 02
 Wetting, Fluidics and Liquids at Interfaces and Surfaces II

- DY 48 15:00 – 17:30 MOL 213
Dynamics and Chaos in Many-Body Systems I
- DY 49 15:00 – 17:45 ZEU 160
Critical Phenomena and Phase Transitions
- DY 50 15:00 – 15:30 ZEU 260
Evolutionary Game Theory
- DY 51 18:00 – 19:00 ZEU 160
Members' Assembly

Semiconductor Physics Division (HL)

Invited Talks

- HL 35.1 09:30 – 10:00 POT 361
Quantum Dynamics of Polarons in Doped
Semiconductor Monolayers
•*Xiaoqin Elaine Li*
- HL 35.2 10:00 – 10:30 POT 361
Impact of phonons on time-resolved optical
signals from excitons
•*Doris E. Reiter*
- HL 35.3 10:30 – 11:00 POT 361
Hot-Exciton Quantum Dynamics in Zero-
Dimensional Structures
•*Alfred Leitenstorfer*
- HL 35.6 12:00 – 12:30 POT 361
Ultrafast dynamics and wave mixing at
excitonic resonances in atomically thin
semiconductors
•*Andreas Knorr*
- HL 35.7 12:30 – 13:00 POT 361
Spontaneous parametric down-conversion in
semiconductor metasurfaces
•*Maria Chekhova*
- HL 43.1 15:00 – 15:30 POT 251
Superradiance as a witness to multipartite
entanglement
•*Frederik Lohof*

Sessions

- HL 34 09:30 – 12:00 POT 81
2D Materials V
- HL 35 09:30 – 13:30 POT 361
Focus Session: Transient multi-wave mixing
on excitonic resonances
- HL 36 09:30 – 11:45 POT 151
Transport properties
- HL 37 09:30 – 12:15 POT 251
Materials and devices for quantum
technology II
- HL 38 09:30 – 11:45 POT 6
Functional semiconductors for renewable
energy solutions I
- HL 39 09:30 – 12:30 GLQR 226
Organic Electronics and Photovoltaics III
- HL 40 10:30 – 12:45 TRE Ma
Focus Session: Frontiers of Electronic-
Structure Theory VI
- HL 41 15:00 – 17:00 POT 81
Oxide Semiconductors I: Ga₂O₃
- HL 42 15:00 – 17:15 POT 151
Quantum dots: Growth
- HL 43 15:00 – 16:45 POT 251
Semiconductor lasers II
- HL 44 15:00 – 17:00 POT 112
Nitrides: Devices
- HL 45 15:00 – 17:15 POT 6
Functional semiconductors for renewable
energy solutions II
- HL 46 18:00 – 19:00 POT 6
Members' Assembly

Crystalline Solids and their Microstructure Division (KFM)

Sessions

- KFM 10 09:00 – 12:35 POT 51
Battery Materials
- KFM 11 14:00 – 17:55 POT 51
Crystal Structure Defects / Real Structure /
Microstructure
- KFM 12 18:00 – 19:00 POT 51
Members' Assembly
- KFM 13 10:00 – 12:35 POT 106
Polar Oxide Crystals and Solid Solutions I
- KFM 14 14:00 – 16:35 POT 106
Polar Oxide Crystals and Solid Solutions II

Magnetism Division (MA)

Invited Talks

- MA 34.1 09:30 – 10:00 HSZ 02
Polarized phonons carry angular momentum
in ultrafast demagnetization
•*Peter Baum*
- MA 34.2 10:00 – 10:30 HSZ 02
Spin-phonon coupling in ordered magnets:
origin and consequences
•*Akashdeep Kamra*
- MA 34.3 10:30 – 11:00 HSZ 02
Magnon-mechanics in high overtone
acoustic resonators
•*Hans Huebl*
- MA 34.4 11:15 – 11:45 HSZ 02
Cavity Magnomechanics: Harnessing the
Magnomechanical Coupling for Applications
in the Microwave and Optical Regimes
•*Silvia Viola Kusminskiy*

- MA 34.5 11:45 – 12:15 HSZ 02
Coherent spin-wave transport in an
antiferromagnet
•*Andrea Caviglia*
- MA 41.1 15:00 – 15:30 HSZ 02
Altermagnetism and spin symmetries
•*Libor Šmejkal*
- MA 41.2 15:30 – 16:00 HSZ 02
Spontaneous Hall effect in Mn₅Si₃
altermagnet
•*H. Reichlova*
- MA 41.5 16:30 – 17:00 HSZ 02
Generation of tilted spin-current by the
collinear antiferromagnet RuO₂
•*Arnab Bose*
- MA 41.6 17:00 – 17:30 HSZ 02
First-principles studies on the anomalous
transport properties of ferromagnets,
antiferromagnets, and altermagnets
•*Wanxiang Feng*
- MA 41.7 17:30 – 18:00 HSZ 02
Insight into chemical and magnetotransport
properties of epitaxial α -Fe₂O₃/Pt bilayers
•*Anna Koziol-Rachwał*
- Sessions**
- MA 34 09:30 – 13:00 HSZ 02
Focus Session: Spin-Phonon Coupling
- MA 35 09:30 – 12:00 HSZ 04
Skyrmions III
- MA 36 09:30 – 11:00 HSZ 401
Magnetic Particles / Clusters
- MA 37 09:30 – 11:00 HSZ 403
Magnetic Heuslers
- MA 38 11:30 – 12:45 HSZ 401
Micro- and Nanostructured Magnetic
Materials

- MA 39 11:30 – 12:45 HSZ 403
Weyl Semimetals
- MA 40 14:00 – 16:00 P2/EG
Poster Magnetism II
- MA 41 15:00 – 18:00 HSZ 02
Focus Session: Altermagnetism: Transport,
Optics, Excitations
- MA 42 15:00 – 17:45 HSZ 04
Caloric Effects in Ferromagnetic Materials
- MA 43 15:00 – 16:45 HSZ 401
Magnetic Imaging Techniques II
- MA 44 15:00 – 17:30 HSZ 403
Frustrated Magnets II
- MA 45 18:00 – 19:00 HSZ 04
Members' Assembly

Thu

Metal and Material Physics Division (MM)

Topical Talks

- MM 35.1 09:30 – 10:00 SCH A 251
Configuration entropy and sample size effect
on glass transition temperature
•*Yannick Champion*
- MM 37.1 10:15 – 10:45 SCH A 216
Structural and chemical atomic complexity
of lattice defects – From defect phase
diagrams to properties of intermetallics
•*Sandra Korte-Kerzel*
- MM 37.5 11:45 – 12:15 SCH A 216
Density-based Grain Boundary Phase
Diagrams
•*Reza Darvishi Kamachali*
- MM 38.1 10:15 – 10:45 SCH A 215
The Fundamental physics of the onset of
frictional motion: How does friction start?
•*Jay Fineberg*

- MM 41.1 15:45 – 16:15 SCH A 216
Entropy in grain boundary segregation
•*Pavel Lejcek*
- Sessions**
- MM 35 09:30 – 10:00 SCH A 251
Invited Talk: Champion
- MM 36 10:15 – 13:15 SCH A 251
Data Driven Materials Science: Big Data
and Work Flows – Microstructure-Property-
Relationships
- MM 37 10:15 – 13:00 SCH A 216
Topical Session: Defect Phases II
- MM 38 10:15 – 11:15 SCH A 215
Topical Session: Fundamentals of Fracture –
Fracture Experiments
- MM 39 11:45 – 13:15 SCH A 215
Phase Transformations: Simulation and
Machine Learning
- MM 40 15:45 – 18:30 SCH A 251
Mechanical Properties and Alloy Design
- MM 41 15:45 – 18:00 SCH A 216
Topical Session: Defect Phases III
- MM 42 15:45 – 18:30 SCH A 215
Interface Controlled Properties and
Nanomaterials: Nanoporous Materials and
Nanolaminates

Surface Science Division (O)

Invited Talk, Topical Talks

- O 71.1 09:30 – 10:15 TRE Phy
Surface dynamics under reaction conditions
•*Edvin Lundgren*
- O 75.1 10:30 – 11:00 GER 38
Ultrafast nano-imaging: probing quantum
dynamics in space and time
•*Markus Raschke*

- O 75.5 11:45 – 12:15 GER 38
 Lightwave-driven scanning tunneling
 microscopy and spectroscopy at the atomic
 scale
 •*Vedran Jelic*
- O 79.3 11:00 – 11:30 TRE Ma
 New Opportunities for First Principles
 Simulations of Thousands of Atoms Using
 Linear Scaling Density Functional Theory
 •*Laura Ratcliff*
- O 80.3 15:30 – 16:00 CHE 89
 Topological Plasmonics and Plasmonic
 Twistronics: Skyrmions, Merons,
 Quasicrystals, and Sykrmion Bags
 •*Harald Giessen*
- O 83.1 15:00 – 15:30 GER 38
 Imaging ultrafast electron dynamics in
 isolated nanoparticles
 •*Daniela Rupp*
- O 83.5 16:15 – 16:45 GER 38
 Ultrafast coherent manipulation of free
 electrons via quantum interaction with
 shaped optical fields
 •*Giovanni Maria Vanacore*
- O 84.1 15:00 – 15:30 WIL A317
 Introducing a FAIR research data
 management infrastructure for experimental
 condensed matter physics data
 •*Christoph Koch*
- O 84.7 17:00 – 17:30 WIL A317
 Open Research Data for Photons and
 Neutrons: Applications in surface scattering
 and machine learning
 •*Linus Pithan*
- O 86.3 15:30 – 16:00 TRE Phy
 Novel concepts to simulate electrified liquid/
 solid interfaces from first principles
 •*Stefan Wippermann*

- O 87.1 15:00 – 15:30 TRE Ma
 Quartz-sensor detection for single-electron
 tunneling spectroscopy
 •*Jascha Repp*
- O 87.5 16:15 – 16:45 TRE Ma
 Application of atomic force microscopy with
 quartz sensors to quantum states in graphene
 and related twisted heterostructures
 •*Joseph Stroscio*
- Sessions**
- O 71 09:30 – 10:15 TRE Phy
 Overview Talk Edvin Lundgren
- O 72 10:30 – 13:00 CHE 89
 Gerhard Ertl Young Investigator Award
 Competition
- O 73 10:30 – 12:30 CHE 91
 Metal Substrates: Adsorption and Reaction
 of Small Molecules II
- O 74 10:30 – 12:45 GER 37
 2D Materials IV: Heterostructures
- O 75 10:30 – 13:15 GER 38
 Focus Session: Ultrafast Dynamics in
 Nanostructures I
- O 76 10:30 – 12:45 WIL A317
 Plasmonics and Nanooptics III: Light-Matter
 Interaction and Spectroscopy II
- O 77 10:30 – 12:45 REC C 213
 Scanning Probe Techniques: Method
 Development II
- O 78 10:30 – 12:45 TRE Phy
 Heterogeneous Catalysis and Surface Dynamics II
- O 79 10:30 – 12:45 TRE Ma
 Focus Session: Frontiers of Electronic-
 Structure Theory VI
- O 80 15:00 – 17:15 CHE 89
 Plasmonics and Nanooptics IV: Light-Matter
 Interaction and Spectroscopy III

- O 81 15:00 – 18:00 CHE 91
Oxide and Insulator Surfaces I: Adsorption
and Reaction of Small Molecules
- O 82 15:00 – 17:15 GER 37
Graphene I: Adsorption, Intercalation and
Doping
- O 83 15:00 – 17:30 GER 38
Focus Session: Ultrafast Dynamics in
Nanostructures II
- O 84 15:00 – 18:30 WIL A317
Focus Session: Making Experimental Data
F.A.I.R. – New Concepts for Research Data
Management I
- O 85 15:00 – 17:45 REC C 213
Electronic Structure of Surfaces II
- O 86 15:00 – 17:45 TRE Phy
Solid-Liquid Interfaces II: Reactions and
Electrochemistry I
- O 87 15:00 – 17:30 TRE Ma
Focus Session: Scanning Probe Microscopy
with Quartz Sensors III
- O 88 19:00 – 19:30 HSZ 01
Members' Assembly
- O 89 19:30 – 20:30 HSZ 01
Post-Deadline Session

Physics of Socio-economic Systems Division (SOE)

Invited Talk

- SOE 14.1 09:30 – 10:00 ZEU 260
Networks in space and time – Exploring the
physics in graph learning
•Ingo Scholtes

Sessions

- SOE 13 09:30 – 12:00 MOL 213
Data Analytics of Complex Dynamical
Systems

SOE 14	09:30 – 10:00	ZEU 260	Networks: From Topology to Dynamics II
SOE 15	10:00 – 10:45	ZEU 260	Networks: From Topology to Dynamics III
SOE 16	11:00 – 12:15	ZEU 260	Collective Dynamics in Animal and Human Societies
SOE 17	15:00 – 15:30	ZEU 260	Evolutionary Game Theory
SOE 18	15:30 – 16:30	ZEU 260	Social Systems, Opinion and Group Dynamics I
SOE 19	16:45 – 18:00	ZEU 260	Social Systems, Opinion and Group Dynamics II

Low Temperature Physics Division (TT)

Invited Talks

TT 44.1	09:30 – 10:00	HSZ 03	Atomic-scale insights to lattice and electronic structure in superconducting nickelates • <i>Berit Goodge</i>
TT 44.2	10:00 – 10:30	HSZ 03	Nickelate and cuprate superconductors: Similar yet different • <i>Vamshi Mohan Katukuri</i>
TT 44.3	10:30 – 11:00	HSZ 03	Superconducting instabilities in strongly-correlated infinite-layer nickelates • <i>Andreas Kreisel</i>
TT 44.4	11:15 – 11:45	HSZ 03	Infinite-layer nickelate thin films: From synthesis to spectroscopy • <i>Daniele Preziosi</i>
TT 44.5	11:45 – 12:15	HSZ 03	Superconducting layered square-planar nickelates: Synthesis, properties, and progress • <i>Grace Pan</i>

Sessions

- TT 44 09:30 – 13:00 HSZ 03
Focus Session: Superconducting Nickelates I
- TT 45 09:30 – 12:15 HSZ 103
Correlated Electrons: 1D Theory
- TT 46 09:30 – 13:00 HSZ 201
Frustrated Magnets: Spin Liquids
- TT 47 09:30 – 13:00 HSZ 204
Quantum-Critical Phenomena
- TT 48 09:30 – 11:15 HSZ 304
Topological Superconductors
- TT 49 11:30 – 13:00 HSZ 304
Quantum Coherence and Quantum Information Systems I
- TT 50 15:00 – 17:00 HSZ 03
Focus Session: Superconducting Nickelates II
- TT 51 15:00 – 17:30 HSZ 103
Correlated Electrons: Charge Order
- TT 52 15:00 – 17:30 HSZ 201
Frustrated Magnets: Strong Spin-Orbit Coupling
- TT 53 15:00 – 17:45 HSZ 204
Graphene
- TT 54 15:00 – 17:45 HSZ 304
Quantum Coherence and Quantum Information Systems II
- TT 55 15:00 – 17:30 MOL 213
Dynamics and Chaos in Many-Body Systems I
- TT 56 15:00 – 18:30 WIL A317
Focus Session: Making Experimental Data F.A.I.R. – New Concepts for Research Data Management I
- TT 57 15:00 – 18:00 P2/OG2
Poster: Superconductivity I

- TT 58 15:00 – 18:00 P2/OG3
Poster: Superconductivity II
- TT 59 15:00 – 18:00 P2/OG4
Poster Session: Topology
- TT 60 17:15 – 19:00 HSZ 03
Quantum Dots, Quantum Wires, Point
Contacts
- TT 61 17:45 – 19:00 HSZ 201
Focus Session: Correlations in Moiré
Quantum Matter II

Exhibition of Scientific Instruments and Literature

09:30 – 18:00 Foyer HSZ / Tent A

Job Market

11:30 – 12:30 HSZ 405

Horn & Company Financial Services GmbH

*"Horn & Company – Gewinne Einblicke in
unsere Projekte zu Data Analytics, Big Data
und Künstlicher Intelligenz und lerne unseren
Beratungsansatz kennen!"*

14:00 – 15:00 HSZ 405

d-fine GmbH

*"Einblicke in die Beratungspraxis bei d-fine –
Projekte im Bankensektor"*

Friday, March 31, 2023

Plenary Talk

- PLV XI 08:30 – 09:15 HSZ 01
Physics in Nanopores: From Data storage to DNA/RNA analysis
•*Ulrich Keyser*

Symposium Physics of van der Waals 2D Heterostructures (SYHS)

Invited Talks

- SYHS 1.1 09:30 – 10:00 HSZ 01
Novel moiré excitons and ultrafast optical dynamics in van der Waals 2D heterostructures
•*Steven G. Louie*
- SYHS 1.2 10:00 – 10:30 HSZ 01
Interaction induced magnetism in 2D semiconductor moiré superlattices
•*Xiaodong Xu*
- SYHS 1.3 10:30 – 11:00 HSZ 01
Ions in tight places: intercalation and transport of ions in van der Waals heterostructures
•*Irina Grigorieva*
- SYHS 1.4 11:15 – 11:45 HSZ 01
Spin-orbit proximity in van der Waals heterostructures
•*Felix Casanova*
- SYHS 1.5 11:45 – 12:15 HSZ 01
Plethora of many-body ground states in magic angle twisted bilayer graphene
•*Dmitri Efetov*

Symposium

- SYHS 1 09:30 – 12:15 HSZ 01
Physics of van der Waals 2D Heterostructures

Biological Physics Division (BP)

Invited Talks

- BP 30.1 09:30 – 10:00 TOE 317
Experiments on Active Polymer-Like Worms
•*Antoine Deblais*
- BP 32.1 12:15 – 13:00 HSZ 03
The physical regulation of brain development
•*Kristian Franze*

Sessions

- BP 29 09:30 – 12:00 BAR Schö
Statistical Physics of Biological Systems II
- BP 30 09:30 – 12:00 TOE 317
Active Matter V
- BP 31 10:00 – 12:00 BAR 0106
Cell Mechanics III
- BP 32 12:15 – 13:00 HSZ 03

Closing Topical Talk Kristian Franze

Chemical and Polymer Physics Division (CPP)

Invited Talks

- CPP 56.1 09:30 – 10:00 GÖR 226
Self-assembled optical metamaterials
•*Ullrich Steiner*
- CPP 56.7 11:30 – 12:00 GÖR 226
Simulating quantum systems with plasmonic waveguide arrays
•*Stefan Linden*
- CPP 56.8 12:00 – 12:30 GÖR 226
single molecule detection on a smartphone microscope enabled by DNA origami biosensors
•*Philip Tinnefeld*
- CPP 57.1 09:30 – 10:00 MER 02
Chiral transport of active and passive colloids
•*Anke Lindner*

- CPP 58.1 09:30 – 10:00 ZEU 255
 Studies of polymer thermosets using
 scattering techniques
 •*Mats Johansson*
- Sessions**
- CPP 56 09:30 – 12:30 GÖR 226
 Focus: Self-Assembly of Plasmonic
 Nanostructures
- CPP 57 09:30 – 13:00 MER 02
 Complex Fluids and Colloids, Micelles and
 Vesicles II
- CPP 58 09:30 – 11:30 ZEU 255
 Polymer Networks and Elastomers
- CPP 59 09:30 – 12:00 TOE 317
 Active Matter V
- CPP 60 12:15 – 13:00 HSZ 03
Closing Topical Talk Kristian Franze

Dynamics and Statistical Physics Division (DY)

Invited Talk

- DY 56.5 10:30 – 11:00 ZEU 160
 Transport and self-organization in living
 fluids
 •*Matthias Weiss*
- Sessions**
- DY 52 09:30 – 12:00 BAR Schö
 Statistical Physics of Biological Systems II
- DY 53 09:30 – 12:00 TOE 317
 Active Matter V
- DY 54 09:30 – 13:00 MER 02
 Complex Fluids and Colloids, Micelles and
 Vesicles
- DY 55 09:30 – 12:30 MOL 213
 Dynamics and Chaos in Many-Body Systems
 II

- DY 56 09:30 – 12:45 ZEU 160
Brownian Motion and Anomalous Diffusion
- DY 57 09:30 – 11:45 ZEU 250
Networks: From Topology to Dynamics IV

Semiconductor Physics Division (HL)

Sessions

- HL 47 09:30 – 11:30 POT 81
Oxide Semiconductors II
- HL 48 09:30 – 12:00 POT 361
Ultra-fast Phenomena
- HL 49 09:30 – 11:45 POT 151
Quantum dots: Devices
- HL 50 09:30 – 13:00 POT 251
Materials and devices for quantum
technology III
- HL 51 09:30 – 12:15 POT 112
Nitrides: Preparation and Characterization
- HL 52 09:30 – 12:30 GÖR 226
Focus: Self-Assembly of Plasmonic
Nanostructures

Magnetism Division (MA)

Sessions

- MA 46 09:30 – 12:45 HSZ 02
Ultrafast Magnetization Effects II
- MA 47 09:30 – 12:30 HSZ 04
Skyrmions IV
- MA 48 09:30 – 11:45 HSZ 401
Magnetic Instrumentation and
Characterization
- MA 49 09:30 – 11:45 HSZ 403
Magnetic Information Technology, Recording,
Sensing

MA 50 09:30 – 11:15 POT 6
Magnetic Domain Walls (non-skyrmionic)

Surface Science Division (O)

Invited Talks, Topical Talks

O 90.1 09:30 – 10:15 TRE Phy
Molecular Surfaces With a Twist:
Magnetochiral Asymmetries and Topological
Self-Assembly

•*Karl-Heinz Ernst*

O 95.1 09:30 – 10:00 WIL A317
FAIRifying ARPES: a Route to Open Data &
Data Analytics

•*Ralph Ernstorfer*

O 95.7 11:15 – 11:45 WIL A317
Electronic Lab Notebooks in Teaching and
Implications on Science

•*Michael Krieger*

O 97.4 11:15 – 11:45 TRE Ma
Heteroatom-substituted and three-
dimensional nanocarbon materials studied
with low temperature STM and qPlus AFM

•*Shigeki Kawai*

O 98.1 13:15 – 14:00 HSZ 03
Surfaces go topological – third generation 2D
quantum materials

•*Ralph Claessen*

Sessions

O 90 09:30 – 10:15 TRE Phy
Overview Talk Karl-Heinz Ernst

O 91 10:30 – 12:45 CHE 89
Plasmonics and Nanooptics V: Waveguides
and Antennas

O 92 10:30 – 13:00 CHE 91
Oxide and Insulator Surfaces II: Structure,
Epitaxy and Growth

- O 93 10:30 – 12:30 GER 37
Graphene II: Electronic Structure and Growth
- O 94 10:30 – 13:00 GER 38
Topology and Symmetry-Protected Materials
- O 95 09:30 – 12:45 WIL A317
Focus Session: Making Experimental Data
F.A.I.R. – New Concepts for Research Data
Management II
- O 96 10:30 – 13:00 TRE Phy
Solid-Liquid Interfaces III: Reactions and
Electrochemistry II
- O 97 10:30 – 12:45 TRE Ma
Focus Session: Scanning Probe Microscopy
with Quartz Sensors IV
- O 98 13:15 – 14:00 HSZ 03
Closing Overview Talk Ralph Claessen

Physics of Socio-economic Systems Division (SOE)

Invited Talk

- SOE 21.1 09:30 – 10:00 ZEU 260
Marginal Stability and Excess volatility in firm
networks
•*Jean-Philippe Bouchaud*

Sessions

- SOE 20 09:30 – 11:45 ZEU 250
Networks: From Topology to Dynamics IV
- SOE 21 09:30 – 10:00 ZEU 260
Financial Markets and Risk Management I
- SOE 22 10:00 – 10:45 ZEU 260
Financial Markets and Risk Management II
- SOE 23 11:00 – 12:00 ZEU 260
Economic Models

Low Temperature Physics Division (TT)

Invited Talk

- TT 66.1 09:30 – 10:00 HSZ 304
Towards ultrasensitive calorimetric detection
in superconducting quantum circuits
•*Bayan Karimi*

Sessions

- TT 62 09:30 – 11:45 HSZ 03
Ultrafast Dynamics of Light-Driven Systems
- TT 63 09:30 – 13:15 HSZ 103
Superconductivity: Theory
- TT 64 09:30 – 11:30 HSZ 201
Topology: Other Topics
- TT 65 09:30 – 12:15 HSZ 204
Correlated Electrons: Other Theoretical
Topics
- TT 66 09:30 – 11:30 HSZ 304
Cryogenic Detectors
- TT 67 09:30 – 12:30 MOL 213
Dynamics and Chaos in Many-Body Systems
II
- TT 68 09:30 – 12:45 WIL A317
Focus Session: Making Experimental Data
F.A.I.R. – New Concepts for Research Data
Management II



Deutsche Physikalische Gesellschaft



DPG Mentoring Programm

2023

Profitiere als **Mentee** von erfahrenen Physiker:innen im Berufsleben.

Jetzt anmelden unter:
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Anmeldezeitraum:
21. April - 21. Mai 2023

Begleiten Sie als **Mentor:in** junge Physiker:innen beim Berufseinstieg.



Index of Exhibitors Dresden (SKM) 2023

Exhibition venue:

Technische Universität Dresden, Campus Südvorstadt, Bergstraße 64, 01069 Dresden

- Lecture Hall Centre (HSZ)
- Tent A (A)

Opening hours exhibition:

- Tuesday, 28 March 09:30 – 18:00
- Wednesday, 29 March 09:30 – 18:00
- Thursday, 30 March 09:30 – 16:00

<u>Company</u>	<u>Location</u>	<u>Stand-No.</u>
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ADDITIVE Soft- und Hardware für Technik und Wissenschaft GmbH	Tent A	A 69
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Max-Planck-Straße 22 b, 61381 Friedrichsdorf

ADDITIVE steht für Berechnen, Visualisieren, Automatisieren für Statistik und Wissensmanagement im Qualitäts-/Ingenieurwesen mit den Produkten Minitab, Origin, Mathematica und ADDITIVE-Cloud-Services.

ADL Analoge & Digitale Leistungselektronik GmbH	Tent A	A 50
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Bunsenstraße 30, 64293 Darmstadt

DC-, unipolare und bipolare Plasmastromversorgungen

Agilent Technologies Sales & Services GmbH & Co. KG	Tent A	A 07
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Hewlett-Packard-Straße 8, 76337 Waldbronn

Vakuumpumpen, Vakuummessgeräte, Lecksucher

AHF analysentechnik AG	HSZ	H 20
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Kohlplattenweg 18, 72074 Tübingen

AHF provides optical filters, LED/laser light sources, image splitters and quality monitoring tools for professional and challenging (fluorescence) microscopy. Customers benefit from long-term and interdisciplinary expertise.

Allectra GmbH	Tent A	A 49
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Traubeneichenstraße 62-66, 16567 Schönfließ

Vakuumkomponenten, el. Durchführungen, Kabel

- Amplitude Laser Group** Tent A A 67
11 avenue de Canteranne, 33600 Pessac, France
Diodengepumpte Femtosekunden-Festkörperlaser (Yb, TiSa), diodengepumpte Ultrakurzpuls-Faserlaser und Femtosekunden-Faserlaser (Yb), Hochenergetische Nanosekunden-Laser
- AMT Andreas Mattil - Technischer Vertrieb** Tent A A 80
Talstraße 33, 67737 Frankelbach
Flanges and fittings, viewports, electrical feedthroughs, electronics and instruments, motion and manipulation, helium leak detectors, gauges, SEM coatings, titanium sublimation pumps and much more.
- ANFATEC Instruments AG** Tent A A 93
Melanchthonstraße 28, 08606 Oelsnitz (V)
Rastersonden-Mikroskope, LockIn-Verstärker
- attocube systems AG** Tent A A 03 / A 04
Eglfinger Weg 2, 85540 Haar
Piezo-based nanopositioners, low temperature microscopes, dry and liquid cryostats
- AXO Dresden GmbH** Tent A A 79
Gasanstaltstraße 8 B, 01237 Dresden
Röntgenspiegel, Upgradelösungen, Präzisionsbeschichtung
- Belektronik GmbH** Tent A A 34
Hauptstraße 38, 01705 Freital
Temperature controller, Peltier element, frequency controller, SAW generator, acoustofluidics, electronic design
- Bluefors** Tent A A 40 / A 41
Arinatie 10, 003700 Helsinki, Finland
Cryogenfree dilution refrigerator measurement systems, which can be equipped with options like experimental wiring, optical access, magnet integration etc. We operate in a world of cold, where laws are determined by quantum mechanics.
- Bruker Nano GmbH** HSZ H 23
Am Studio 2D, 12489 Berlin
Bruker provides industry-leading surface analysis instruments for nanoscale materials characterization and process monitoring, addressing R&D and QA/QC questions with speed, accuracy, and ease. More information: www.Bruker.com

Cambridge University Press Tent A A 59

Shaftesbury Road, Cambridge, CB2 2RU, United Kingdom

Publisher, Books, Journals

**ChemPur Feinchemikalien und
Forschungsbedarf GmbH** Tent A A 84

Rüppurrer Straße 92, 76137 Karlsruhe

Metalle, Anorganika, Aufdampfmaterialien, Sputtertargets

CLASS 5 PHOTONICS GmbH HSZ H 19

Notkestraße 85, 22607 Hamburg

*Ultrafast High Power Laser Systems, HHG-Sources, XUV-,
EUV-, VUV-, VIS-, N/MIR-Sources, OPCPA, MPC*

CreaPhys GmbH Tent A A 16

Niedersedlitzer Straße 75 (Eingang A), 01257 Dresden

*Vakuumbeschichtung, Komponenten und Anlagen (Beschich-
tungsquellen), Sublimationsanlagen, Reinste organische
Substanzen/Service, Inertgasanwendung, Glovebox/Gasreini-
gung*

CreaTec Fischer & Co. GmbH Tent A A 12

Industriestraße 9, 74391 Erlichheim

*Manufacturer of customized LT-STM/AFM, MBE, RTA and
molecular spray systems including associated electro-
nics with software solutions as well as a wide range of
equipment for use in (ultra-high) vacuum.*

CryLaS Crystal Laser Systems GmbH Tent A A 54

Ostendstraße 25, 12459 Berlin

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and small linewidth cw lasers at 266 nm*

Cryoandmore Budzylek GbR Tent A A 99 / A 100

Hermann-Cossmann-Straße 19, 41472 Neuss

*4K Cryostats, Pulse Tube Cryocooler up to 2.7W@4.2K, GM
Cryocooler up to 2W@4.2K Ultra Low Vibration Cryostats,
Custom Cryostats*

Cryogenic Ltd. Tent A A 02

Action Park Estate, London, W3 7QE, United Kingdom

*Cryogen-free, superconducting, 20 Tesla, magnets, measure-
ment, beamline, neutron, scattering, 3He, magnetism, VSM,
conductivity, electrical, transport, low-temperature, UHV,
SQUID, resonance, NMR, EPR, dilution refrigerator*

- CryoVac GmbH & Co. KG** Tent A A 51 / A 52
Langbaughstraße 13, 53842 Troisdorf
Helium-Bad- und Verdampferkryostate, Temperaturmess- und Regelgeräte
- DAPHNE4NFDI** HSZ H 27
c/o DESY (FS-SC), Notkestrasse 85, 22607 Hamburg
DAten aus PHotonen und Neutronen Experimenten
- D.I.S. Germany GmbH** Tent A A 53
Breite Straße 2, 01796 Pirna
Ion beam sources, charged particle optics and diagnostics, ion irradiation facilities, gas analytics, and custom solutions
- DCA Instruments Oy** Tent A A 96
Vajossuonkatu 8, 20360 Turku, Finland
Thin Film Deposition
- Delft Circuits B.V.** HSZ H 26
Lorentweg 1, 2628 CJ Delft, Niederlande
Flexible cryogenic RF wiring Cri/oFlex
- Deutsche Forschungsgemeinschaft (DFG), 53170 Bonn** HSZ H 03
Information und Beratung zu den Förderprogrammen der DFG
- Digital Surf** Tent A A 46
16 rue Lavoisier, 25000 Besancon, France
Digital Surf provides software solutions for analyzing data from a range of instruments including Scanning Probe Microscopes (SPM), Scanning Electron Microscopes (SEM), profilometers and spectroscopy.
- Dr. Eberl MBE-Komponenten GmbH** Tent A A 81
Josef-Beyerle-Straße 18/1, 71263 Weil der Stadt
MBE-Systeme, Effusionszellen, Elektronenstrahlverdampfer, kundenspezifische UHV-Lösungen
- Edwards High Vacuum International Ltd.** HSZ H 05
Burgess Hill, West Sussex, RH15 9TW, United Kingdom
Complete Vacuum Solutions: Edwards stellt seine Vakuumpumpen sowie Zubehör/Messgeräte (wie APG200) vor.

Entropy GmbH Tent A A 94

Gmunder Straße 37 a, 81379 München

Entropy GmbH is a cryostat manufacturer based in Munich, Germany. The product range offers various types of closed-cycle cryostats for the temperature range of Kelvin and Millikelvin.

FAIRmat HSZ H 27

c/o Humboldt-Universität zu Berlin, Zum Großen Windkanal 2, 12489 Berlin

FAIRe Dateninfrastruktur für die Physik der kondensierten Materie und die Chemische Physik von Stoffen

Ferrovac GmbH Tent A A 83

Thurgauerstr. 72, 8050 Zürich, Switzerland

Ferrovac GmbH provides world-leading Swiss UHV technology. We specialise in sample handling, transfer, and transport equipment, with our dynamic design team offering customised solutions across our range.

Focus GmbH Tent A A 08

Neukirchner Straße 2, 65510 Hünstetten-Kesselbach

Instruments for surface science

GVL Cryoengineering

Dr. George V. Lecomte GmbH Tent A A 68

Aachener Straße 89, 52223 Stolberg

$^3\text{He}/^4\text{He}$ Mischkryostaten, Tieftemperaturzubehör

Hamamatsu Photonics Deutschland GmbH HSZ H 10

Arzbergerstraße 10, 82211 Herrsching

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Heinz Maier-Leibnitz Zentrum (MLZ) Tent A A 85

Lichtenbergstraße 1, 85747 Garching

As a cooperation between TU München, Forschungszentrum Jülich GmbH and Helmholtz-Zentrum hereon GmbH, the MLZ is a user facility for cutting-edge research with neutrons and positrons.

- Helmholtz-Zentrum
Dresden-Rossendorf e. V. (HZDR)** Tent A A 18
Hochfeld-Magnetlabor Dresden (HLD)
Bautzner Landstraße 400, 01328 Dresden
Hardware und PC für Demonstration der SECoP-Software
- Hiden Analytical Europe GmbH** Tent A A 15
Kaiserswerther Straße 215, 40474 Düsseldorf
Quadrupol Massenspektrometer: Restgas-, Oberflächen-, Cluster-, Molekularstrahl- analyse; SIMS/SNMS/ToF-qSIMS-/TPD-Workstations; Gas-Analyse-Geräte, MIMS & DEMS; Plas-madiagnostik- & Energie-Analysatoren
- HORIBA Jobin Yvon GmbH** Tent A A 55
Hans-Mess-Straße 6, 61440 Oberursel
Ihr Partner für instrumentelle Analytik und innovative Spektroskopie
- Hositrad Deutschland** Tent A A 39
Lindnergasse 2, 93047 Regensburg
CF, KF, ISO, UHV-Vakuumbauteile, Elektrische Durchführungen, Membranbalgen, Special Products
- Hübner Photonics** Tent A A 98
Heinrich-Hertz-Straße 2, 34123 Kassel
HÜBNER PHOTONICS: Single-Frequenz CW DPSS-, Faser- und durchstimmbare Laser, UV bis Mid-IR, von 10 mW bis 130 W
- HZDR Innovation GmbH** Tent A A 35
Bautzner Landstraße 400, 01328 Dresden
Messgeräte zur elektrischen Charakterisierung
- ICEoxford** Tent A A 20
Avenue 4, Station Lane, Witney, Oxon, OX28 4BN, United Kingdom
Cryostats
- Incienta Technologie GmbH** Tent A A 29 / A 30
Pommernstraße 22, 63110 Rodgau-Weiskirchen
Cryogenics, Ferro and Piezoelectric Testing, UHV and Thin Film Technology

IndiScale GmbH Tent A A 45

Lotzestraße 22a, 37083 Göttingen

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Infrarotsensorik und Messtechnik Tent A A 71

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Institut für Luft- und Kältetechnik
gemeinnützige Gesellschaft mbH Tent A A 75

Bertolt-Brecht-Allee 20, 01309 Dresden

Kryotechnik, Kryostate, tiefkalte Elektronik, Messdienstleistungen, Exponate: Kryoflüssigkeitspumpe, Elektronik, Kryostate

Institute of Physics Publishing Tent A A 63

Temple Circus, Temple Way, Bristol, BS1 6BE, United Kingdom
Publishers of journals, magazines, community websites

ISEG Spezialelektronik GmbH Tent A A 88

Bautzner Landstraße 23, 01454 Radeberg / Rossendorf
Hochspannungsversorgungen, Hochspannungsnetzgeräte, HV-DC/DC- Konverter

JCM Dr. Jürgen Christian Müller Tent A A 28

Zeilweg 19, 60439 Frankfurt / Main

Vakuumtechnik, Dünnschichttechnik, Tieftemperaturtechnik, supraleitende Magnete

Jobbörse HSZ H 16 / H 17

Companies from industry, consulting and public authorities present themselves as attractive employers. The presentations in room HSZ 405 last one hour including a Q&A session. On the day of the respective slots, the contact persons can also be found at the booth.

JUST VACUUM GmbH Tent A A 57

Daimlerstraße 17, 66849 Landstuhl
Vakuumtechnik

- Kashiyama Europe GmbH** Tent A A 97
 Leopoldstraße 244, 80807 München
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- kiutra GmbH** Tent A A 31
 Flößergasse 2, 81369 München
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- Korvus Technology Ltd. Kings Grove** Tent A A 95
 Kings Grove, Maidenhead SL6 4DP, United Kingdom
Vacuum Deposition Equipment
- Kurt J. Lesker GmbH** Tent A A 66
 Fritz-Schreiter-Straße 18, 01259 Dresden
Chambers, valves, pumps, materials, thin film deposition systems, process equipment
- LASER 2000 GmbH** HSZ H 22
 Argelsrieder Feld 14, 82234 Weßling
Laser & Strahlquellen, Optik & Optomechanik, Optische Messtechnik, Laserschutz, LWL-/Netzwerktechnik
- Leiden Probe Microscopy B.V.** Tent A A 91
 J.H. Oortweg 19, 2333 CH Leiden, The Netherlands
High Pressure STM, Reactor STM, CVD, Graphene growth
- Leybold GmbH** HSZ H 04
 Bonner Straße 498, 50968 Köln
Vakuumpumpen

MaTeck -**Material-Technologie & Kristalle GmbH** HSZ H 06

Im Langenbroich 20, 52428 Jülich

*Einkristalle, Sputtertargets, Substrate, hochreine Materialien, Isotope, Halbleiterkristalle***Maybell Quantum Industries** Tent A A 44

7100 Broadway Building 3 / Suite D-E, Denver CO 80221, USA

*Maybell Quantum is an American manufacturer of dilution refrigerators with innovative features and compact footprint. Maybell also supplies ultra high density ribbon cables, Flex-lines, with low thermal load and superior performance.***Menlo Systems GmbH** Tent A A 36 / A 37

Bunsenstraße 5, 82152 Martinsried

*Frequency Combs, Quantum Systems, THz System, Femto-second Lasers***MG Optical Solutions GmbH** Tent A A 64

Industriestraße 23, 86919 Utting/Ammersee

*Laser Servo and Controller / Spectroscopy / DBR-Laser / Wavelength Meter, Spectrum Analyzer / MIR Spectrometers, Detectors and Camera / Terahertz Imaging Systems and Laser***Munich Quantum Valley** Tent A A 33

Leopoldstraße 244, 80807 München

*Munich Quantum Valley promotes quantum science and quantum technologies in Bavaria and offers various research positions, especially in connection to quantum computing.***Nanosurf GmbH** HSZ H 11 / H 12

Rheinstraße 5, 63225 Langen

*AFM, SPM, Atomic Force Microscopes, Scanning Probe Microscopes***Newport Spectra-Physics GmbH** Tent A A 23

Guerickeweg 7, 64291 Darmstadt

*Motion Control, Opto-Mechanik, Optiken, Laser, Lichtquellen, Optische Tische, Schwingungsisolaton***Nikalyte Ltd** Tent A A 26

77 Heyford Park, OX25 5HD Upper Heyford, Bicester, United Kingdom

NL50 benchtop nanoparticle system

Oxford Instruments**NanoTechnology Tools Ltd**

Tent A A 60 / A 61

Tubney Woods, Abingdon, Oxon OX13 5QX, United Kingdom

*Oxford Instruments NanoScience designs, supplies and supports market-leading research tools that enable quantum technologies, nanotechnology research, advanced materials and nanodevice development in the physical sciences.***Park Systems Europe GmbH**

HSZ H 07 / H 08

Schildkrötstraße 15, 68199 Mannheim

*Atomic Force Microscopy + Active Vibration Isolation***Pfeiffer Vacuum GmbH**

Tent A A 13 / A 14

Berliner Straße 43, 35614 Asslar

*Vakuumpumpen, Messgeräte, Turbopumpen, Lecksucher***Picovac**

Tent A

A 92

Ziegelhüttenweg 30a, 65232 Taunusstein

*Thin Film Deposition Systems, Instruments for In-situ/Operando Research, Nanoparticle Deposition. Representing Korvus Technology, Leiden Probe Microscopy, Moorfield Nanotechnology, Nikalyte***PIEZOCONCEPT**

Tent A

A 65

15 Rue du Bocage, 69008 Lyon, France

*Piezo stage, nanopositioner, stages for microscopy, optical metrology, AFM***PINK GmbH Vakuumtechnik**

Tent A

A 25

Gyula-Horn-Straße 20, 97877 Wertheim

*Vakuum- und UHV-Kammern, Beschleunigerkomponenten, vakuumtechnische Anlagen und Systeme, Manipulatoren***PREVAC sp.z.o.o.**

Tent A

A 70

Raciborska Str. 61, 44362 Rogów, Poland

*Thin Films, Surface Science, Vacuum Science and Technology***Qioptiq Photonics GmbH & Co. KG**

Tent A

A 89

Hans-Riedl-Straße 9, 85622 Feldkirchen (München)

Präzisionsoptik und Mechanik, Faseroptik, Aufbausysteme, Laser

Qlibri GmbH HSZ H 18

Maistraße 67, 80337 München

Cavity-based microscopes for absorption microscopy, fiber-based micromirrors, and quantum optics at ambient and cryogenic temperatures

Qnami AG Tent A A 19

Hofackerstrasse 40B, 4132 Muttenz, Switzerland

Quantum Sensor

Quantum Design GmbH Tent A A 21 / A 22

Im Tiefen See 58, 64293 Darmstadt

Kryostate, Optische Kryostate, Kryogene Probe-Stations, Magnetsysteme für die Materialcharakterisierung, Magnetometer, Heliumverflüssiger, Temperatur Sensoren & Controller, Elektrische Messtechnik, CCD-, ICCD-, EMCCD-Detektoren, Spektrographen

Quantum Machines HSZ H 21

Fruebjergvej 3, 2100 Copenhagen, Denmark

Control systems for quantum physics experiments

Raith GmbH Tent A A 05 / A 06

Konrad-Adenauer-Allee 8, 44263 Dortmund

Raith is a leading precision technology manufacturer for nanofabrication, electron beam lithography, FIB SEM nanofabrication, nanoengineering, process control and reverse engineering applications.

SAES Getters S.P.A. Tent A A 56

Viale Italia 77, 20020 Lainate (Milan), Italy

UHV NEG-Pumpen, Alkalimetall-Dispenser, Hochvakuum-pumpen, Getter

Schaefer Technologie GmbH Tent A A 76 / A 77

Robert-Bosch-Straße 31, 63225 Langen / A 78

Rastersondenmikroskopie, Kryo-xyz-stages, Nanoprobing

Schäfter + Kirchhoff GmbH Tent A A 38

Kieler Straße 212, 22525 Hamburg

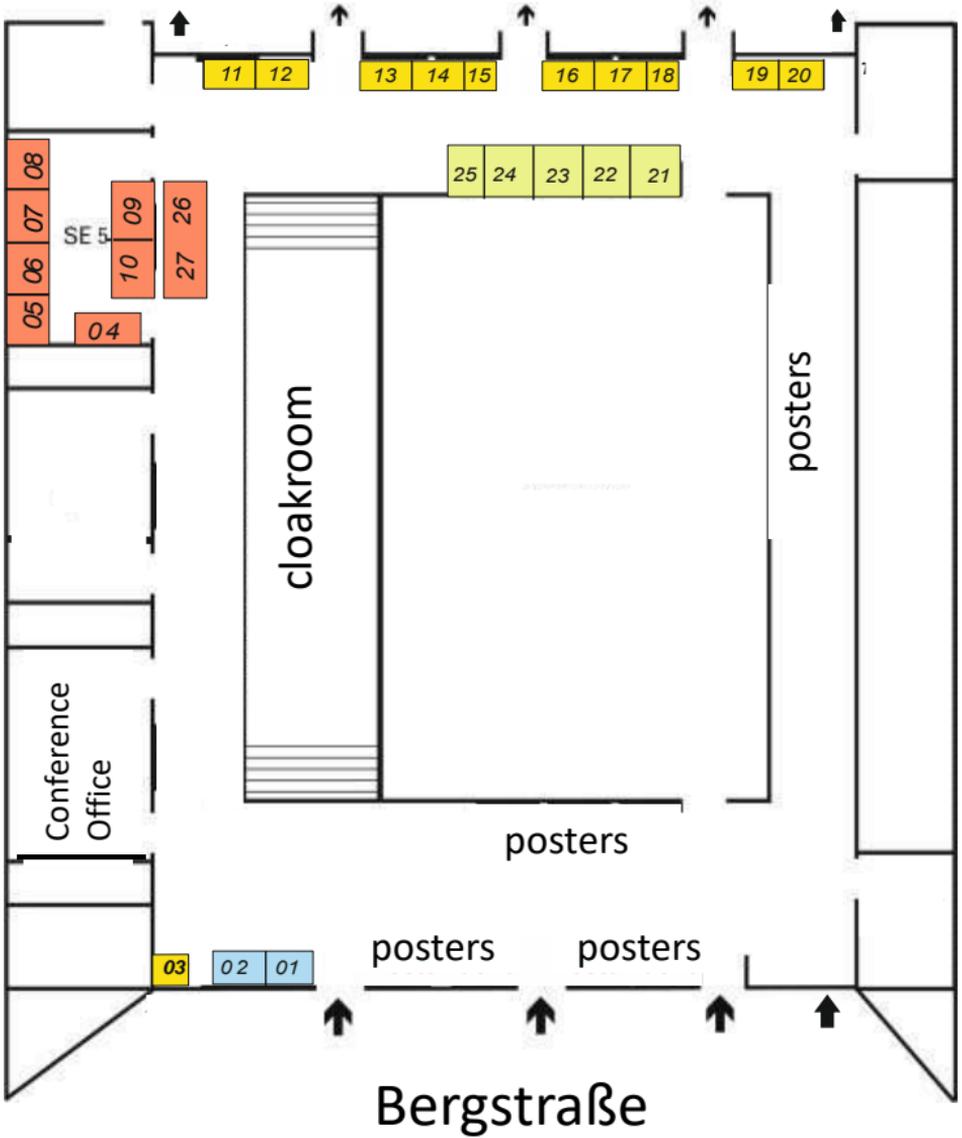
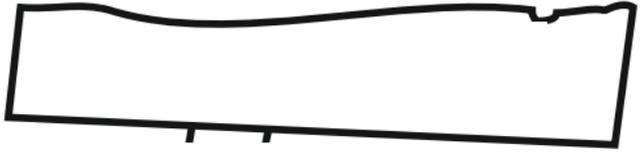
Polarization-maintaining fiber optic components including laser beam coupler, fiber collimators, fiber cables, polarization analyzers and fiber port clusters

Scienta Omicron GmbH	Tent A	A 17
Limburger Straße 75, 65232 Taunusstein		
<i>Systems and Instruments for Surface Science and Thin Film Technology</i>		
Seismion GmbH	HSZ	H 09
Berliner Straße 8, 30457 Hannover		
<i>Actively controlled vibration isolators for high-precision applications in metrology and scientific advancement. Sub-Hertz isolation of vibrations at nanometer scale and adaptive levelling.</i>		
SEKELS GmbH	Tent A	A 43
Dieselstraße 6, 61239 Ober-Mörlen		
<i>Weichmagnetische Werkstoffe, magnetische Abschirmungen, Magnetsysteme, Induktivitäten, magnetische Messtechnik</i>		
SENTECH Instruments GmbH	Tent A	A 87
Schwarzschildstraße 2, 12489 Berlin		
<i>Plasma-Prozess-Technologie und Ellipsometer</i>		
SI Scientific Instruments GmbH	Tent A	A 01
Römerstraße 67, 82205 Gilching		
<i>Spektrometer, Lock-In Verstärker</i>		
Sirah Lasertechnik GmbH	Tent A	A 09
Heinrich-Hertz-Straße 11, 41516 Grevenbroich		
<i>Laser, Laseroptik</i>		
SmarAct GmbH	Tent A	A 47
Schütte-Lanz-Straße 9, 26135 Oldenburg		
<i>SmarAct Kleingeräte</i>		
SPECS Surface Nano Analysis GmbH	HSZ	H 24 / H 25
Voltastraße 5, 13355 Berlin		
<i>Photoelektronenspektroskopie, Rastersondenmikroskopie, winkelaufgelöste Photoemission, Elektronenmikroskopie</i>		
Springer-Verlag GmbH	Tent A	A 32
Tiergartenstraße 17, 69121 Heidelberg		
<i>Wissenschaftliche Bücher und Zeitschriften</i>		
Staub Instrumente GmbH	Tent A	A 62
Hagenastraße 22, 85416 Langenbach		
<i>In-situ Oberflächenanalyse, RHEED, Auger, AES, XPS, UPS, REELS, ELS, Elektronenquellen, Ionenquellen, Analysatoren</i>		

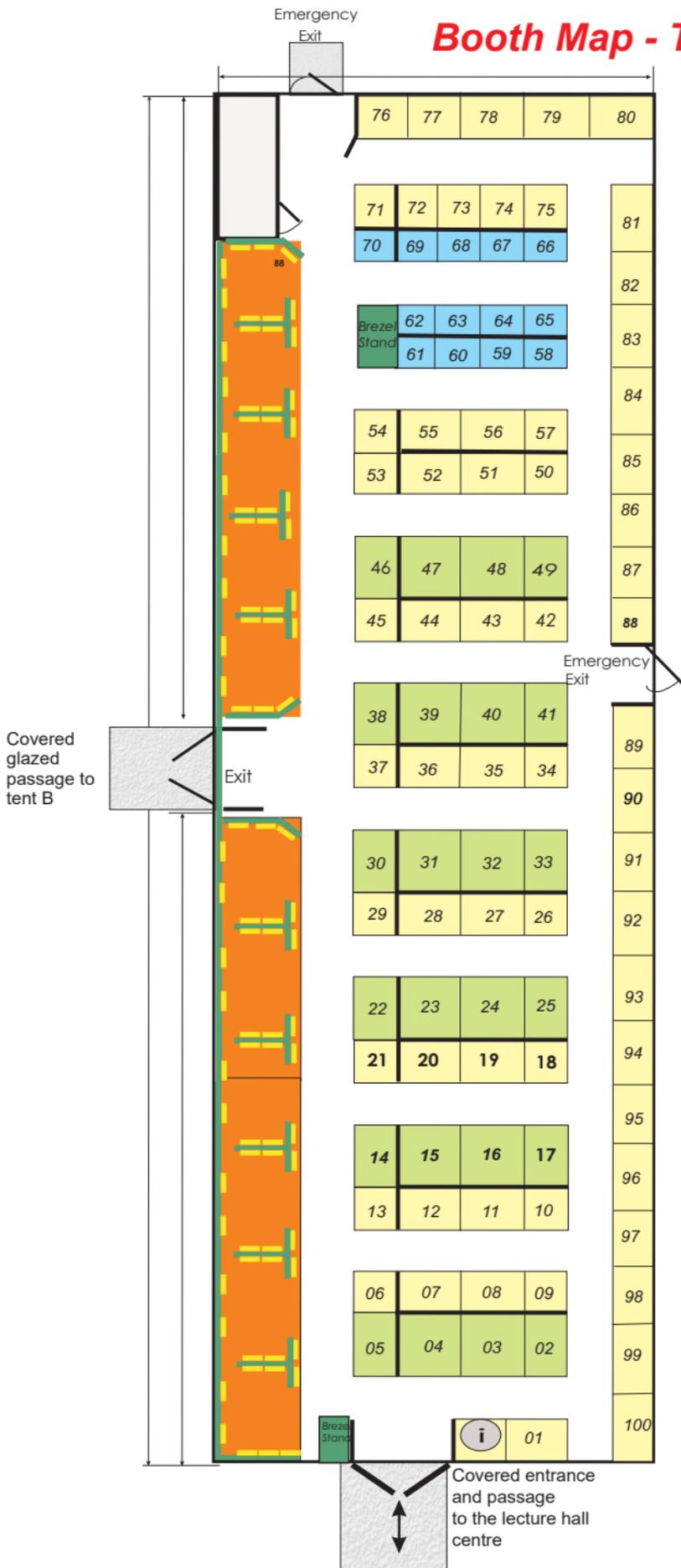
Surface Concept GmbH	Tent A	A 86
Am Sägewerk 23 a, 55124 Mainz		
<i>Momentum Microscop. MCP based Detectors, Time Measurement Systems, Scientific Cameras, Fast Analogue Electronics</i>		
SweepMe! GmbH	Tent A	A 34
Bienertstraße 18, 01187 Dresden		
<i>Modular test & measurement software, Instrument automation with Python, Data acquisition</i>		
tectra GmbH	Tent A	A 90
Reuterweg 51-53, 60323 Frankfurt/M.		
<i>UHV Komponenten, Dünnschichttechnik, Plasmaquellen</i>		
Tecuum AG		
Applied Vacuum Technology	Tent A	A 82
Gertrudstrasse 1, 8400 Winterthur, Schweiz		
<i>VCM600 Thermal Vacuum Evaporator Systems</i>		
TESCAN GmbH	Tent A	A 24
Zum Lonnenhohl 46, 44319 Dortmund		
<i>Elektronenmikroskopie</i>		
THORLABS GmbH	Tent A	A 10 / A 11
Münchner Weg 1, 85232 Bergkirchen		
<i>Optische & optomechanische Komponenten, Test & Measurement Systeme, optische Tische und Vibrationskontrolle, Nanopositionierungen, Lichtquellen sowie Imaging, Mikroskopie und Life Science Komponenten</i>		
TOPTICA Photonics AG	HSZ	H 01 / H 02
Lochhamer Schlag 19, 82166 Gräfelfing / München		
<i>New Tunable Diode Lasers, New Laser Frequency Stabilization, Femto Fiber Lasers, Wavelength Meters</i>		
TransMIT GmbH	Tent A	A 42
Kerkrader Straße 3, 35394 Gießen		
<i>TransMIT GmbH – Center for Adaptive Cryotechnology and Sensors</i>		
UHV Design Ltd. Judge House	Tent A	A 74
Lewes Road, Laughton, East Sussex BN8 6BN, United Kingdom		
<i>HV and UHV motion and heating products</i>		

- vakuumfinder.de**
c/o CompoNext GbR Tent A A 48
 Freiligrathstraße 35, 07743 Jena
Vakuumpkomponenten, Vakuumtechnik, Vakuummesstechnik
- Vaqtec-scientific Mario Melzer** Tent A A 58
 Thulestraße 18B, 13189 Berlin
Komponenten der UHV- und HV-Technik: u.a. Stromdurchführungen, Schaugläser, Schichtdicken-Messgeräte
- Wiley-VCH GmbH** HSZ H 15
 Boschstraße 12, 69469 Weinheim
Physik Journal – das Mitglieder-Journal der DPG, wissenschaftliche Bücher und Zeitschriften, elektronische Produkte für die Wissensvermittlung, Karriereportale
- WITec Wissenschaftliche Instrumente und Technologie GmbH** Tent A A 27
 Lise-Meitner-Straße 6, 89081 Ulm
Hochauflösende Mikroskope: AFM, Raman, SNOM
- World Scientific Publishing and Imperial College Press** HSZ H 14
 57 Shelton Street, London WC2H 9HE, United Kingdom
International scientific books and journals covering all topics in Condensed Matter Physics
- Zurich Instruments AG** HSZ H 06
 Technoparkstrasse 1, 8005 Zurich, Switzerland
Test & Measurement, lock-in amplifiers, high quality data

Exhibition Lecture Hall Center (HSZ)



Booth Map - Tent A

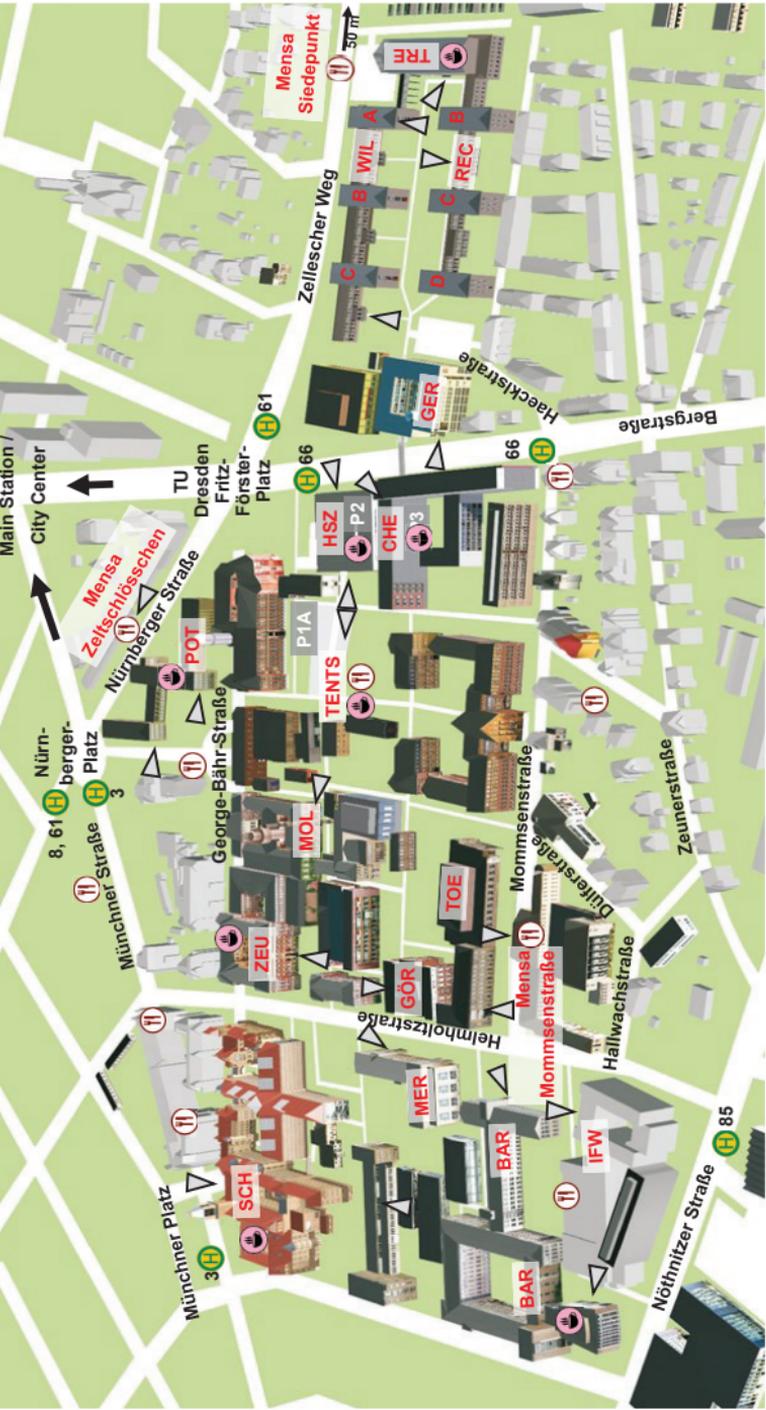


Exhibition

Timetable

Start	Sunday, March 26	Monday, March 27	Tuesday, March 28	
08:15				
08:30				
08:45		Plenary Talk (HSZ 01)	Plenary Talk (HSZ 01)	
09:00				
09:15				
09:30				
09:45				
10:00		SYOF (HSZ 01)	SYFP (HSZ 01)	
10:15		SKM Diss. Prize Symp. (SYSD) (HSZ 02)		
10:30				
10:45				
11:00			AKC (ZEU 250)	
11:15				
11:30				
11:45				
12:00				
12:15				
12:30				
12:45				
13:00				
13:15		Lunch Talk (HSZ 02)	Prize Talk (HSZ 01)	
13:30		Disc. Lunch (HSZ 03)	Lunch Talk (HSZ 02)	
13:45			DFG (HSZ 03)	
14:00		Plenary Talks (HSZ 01 + HSZ 02)		
14:15				
14:30			Sessions of Divisions	
14:45				
15:00				
15:15	R e g i s t r a t i o n			
15:30				
15:45				
16:00		Tutorials (HSZ 01-HSZ 04)	SYGM (HSZ 01)	Special Plenary Session with Award Ceremony and Ceremonial Talk (HSZ 01)
16:15				
16:30				
16:45				
17:00				
17:15				
17:30				
17:45				
18:00				
18:15				
18:30				
18:45				
19:00	Public Evening Lecture (HSZ 01)			
19:15				
19:30				
19:45	Welcome Evening (Tent A)			
20:00				
20:15		EinsteinSlam (HSZ 01)		
20:30				
20:45				
21:00				
21:15				
21:30				
21:45				

Wednesday, March 29			Thursday, March 30			Friday, March 31
Plenary Talk (HSZ 01)			Plenary Talk (HSZ 01)			Plenary Talk (HSZ 01)
SYUE (HSZ 01)	Sessions of Divisions		SYQD (HSZ 01)	Sessions of Divisions		SYHS (HSZ 01)
						Closing Talk (HSZ 03)
Prize Talk (HSZ 01)	Lunch Talk (HSZ 02)	Disc. Lunch (HSZ 03)	Prize Talk (HSZ 01)	Lunch Talk (HSZ 02)	Disc. Lunch (HSZ 03)	Closing Talk (HSZ 03)
Plenary Talks (HSZ 01 + HSZ 02)			Plenary Talks (HSZ 01 + HSZ 02)			
SYQC (HSZ 01)	Sessions / Poster of Divisions		SYTS (HSZ 01)	Sessions / Poster of Divisions		
			Members' Assemblies of the Divisions			
			Members' Assembly (HSZ 01) and Postdeadline Session of the Surface Science Division (Tent A)			



- HSZ** Lecture hall name (abbreviation)
<https://navigator.tu-dresden.de>
- Entrance
 Coffee
 Mensa, Snacks
 Tram or bus stop with number
- | | | | |
|-----|---|-----------|---|
| BAR | Barkhausen-Bau | POT | Gerhard-Pothoff-Bau |
| CHE | Chemiegebäude, Poster P3 | REC | Recknagel-Bau |
| GER | von-Gerber-Bau | SCH | Georg-Schumann-Bau |
| GOR | Görges-Bau | TOE | Toepfer-Bau |
| HSZ | Hörsaalzentrum (Lecture Hall Center) | TRE | Treffitz-Bau |
| | Poster P2, Conference office, Plenary talks, Symposia, Tutorials, Einstein Slam, Evening talk, Job market, Exhibition | Tent A, B | Poster P1A, Exhibition & Coffee, Snacks |
| MER | Merkel-Bau | WIL | Willers-Bau |
| MOL | Mollier-Bau | ZEU | Zeuner-Bau |