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INSTITUTIONAL STRATEGY

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CLUSTERS OF EXCELLENCE

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Dear Readers,

We made it! TU Dresden is still a University of Excellence!

This announcement was made in the late afternoon by the Excellence Commission, consisting of a committee of experts as well as of the federal and state ministers for science.

TU Dresden is one of eleven Universities of Excellence in Germany and **the only Uni**versity of Excellence in the eastern German federal states.

The TUD application, which convinced the reviewers, is based both on the successful implementation of the Institutional Strategy from the previous round of the Excellence Competition as well as on a vision of the future that was co-designed by around **1,000 TUD members**.

We are now eagerly awaiting the formal confirmation of the funding, which will contain the concrete funding amount for the next seven years. **Funding will start on 1 November 2019.**

> TUD press release on today's excellence decision



With this **80th edition of the Excellence Newsletter**, the editorial team is signing off for the summer break. How very fitting that the anniversary edition coincides with the positive outcome of years of work, at the end of which TU Dresden will now, once





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again, be bestowed with the University of Excellence status.

We thank all our readers for their loyalty and hope that you will continue to accompany us along our path. The next Excellence Newsletter will be published in **September 2019**. Until then, we wish you a beautiful summer!

TUD Welcomes Four New Dresden Fellows

The Dresden Fellowship Programme for visiting scientists continues to be very much in demand. In July 2019, TU Dresden welcomed four new Dresden Fellows:

- Dr. Mehmet K. Mahmut (Macquarie University Sydney)
- Prof. Franco Pierno (University of Toronto)
- Dr. Dina Gusejnova (University of Sheffield)
- **Prof. Makhsud Bobojanov** (Tashkent State Technical University).

Since the beginning of the year, 27 international scientists from all disciplines have already used the programme for a research stay at TU Dresden. The aim of the programme is to intensify **collaborations** and initiate **long-term projects**.

Sixth Trefftz Professor Visits TUD

Dr. Laura Carrara from the University of Tübingen/Heidelberg Academy of Sciences and Humanities is the **sixth woman scientist** to be recruited for a Trefftz Visiting Professorship this year.



Dr. Laura Carrara is a classical philologist and literary and cultural scholar, and will be a guest at the Institute of Classical Philology at the Chair of Prof. Dennis Pausch from August to the end of October 2019.

Her research focuses on the **representation** of seismic phenomena and the verbalisation of catastrophes in Greek and Latin literature.

During her stay, she will be holding a compact seminar on natural disasters in antiquity and will lend support in preparing and leading a seminar excursion to Southern France.

Since 2013, a total of **29 outstanding women scientists** have been appointed to TU Dresden as part of the Eleonore Trefftz Programme for Visiting Women Professors. The programme enables excellent female scientists to spend **up to one year teaching and researching** at TU Dresden.

The programme is financed by funds from the Institutional Strategy within the framework of the Excellence Initiative of the Federal and State Governments.

Three New TUD Young Investigators Appointed

The ranks of the TUD Young Investigators are growing. In May and June, newly appointed were:

- Dr. Marco Zimmerling
- Dr. Aliaksei Charnukha
- Dr. Johannes Gooth

The "TUD Young Investigator" status, which was introduced as part of the Institutional Strategy, strengthens the position of excellent, **independent junior research group leaders** at the Dresden science location by integrating them more closely into the faculties and offering them a range of qualifications tailored specifically to their needs.





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International Staff Training Week a Success



From **3 to 7 June 2019**, more than sixty members of staff from fifty universities all over the world attended the 4th International Staff Training Week at TU Dresden. The overarching theme was "Challenges of Modern Universities". In workshops and a panel discussion, the participants debated challenges and solutions in the areas of **internationalisation and research funding** as well as the fundamental responsibility of universities in today's world.

The Staff Week opened with a lecture by Dr. Uwe Brandenburg, which is available online.

Launch of "Dynamics of Complex Networks"

The kick-off event of the fifth DRESDENconcept Scientific Area Networks (SAN) "Dynamics of Complex Networks" will take place at the Hygiene-Museum Dresden from 5 pm to 8 pm on 20 August 2019.

The SAN takes an interdisciplinary perspective and provides insights into complex networks ("systems of systems") in the research fields of **biology and neurology**, **social sciences and the humanities** as well as **supply infrastructure** (energy, water and transport).

At the kick-off event, research results from scientists from DRESDEN-concept partner institutions will be presented in an aggregate form. Subsequently, there will be follow-ups to intensify networking with the aim of initiating specific research projects.

Interested parties are cordially invited to contribute with a short lecture (max. 5 slides in 5 minutes)! The event will be held in English.

Please send registrations for short contributions (name, institution, contribution) by **24 July 2019** to:

lena.herlitzius@tu-dresden.de

As a participant, please register at: https://sannetze.eventbrite.de

Cast Off with DRESDEN-concept



There are still tickets available for the annual science cruise of the DRESDEN-concept research alliance. The cruise offers an opportunity for **exchanging** ideas and experiences with scientists from all DRESDEN-concept partners, while enjoying snacks and drinks, good music and the best views of the banks of the River Elbe.

The science steamer will leave on **24 July 2019** and **boarding will begin at 5 pm on Terrassenufer (dock 2).**

Tickets can be purchased online.

cfaed Explores Energy Levels of Organic Semiconductors

Physicists from the Dresden Integrated Center for Applied Physics and Photonic Materials (IAPP) and the Center for Advancing Electronics Dresden (cfaed), together with





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researchers from Tübingen, Potsdam and Mainz were able to demonstrate how electronic energies in organic semiconductor films can be tuned by electrostatic forces.

A diverse set of experiments supported by simulations were able to rationalise the effect of **specific electrostatic forces** exerted by the molecular building blocks on charge carriers. The study was published recently in "Nature Communications".

As the observed electrostatic effect is a general property of organic materials, including so-called "small molecules" and polymers, it can **help to improve the performance of all types of organic devices**.

Prof. Fettweis New Member of the DFG Senate



In July 2019, Prof. Gerhard Fettweis was elected a member of the Senate of the German Research Foundation for the field of Electrical Engineering and Information Technology.

Since 1994, Prof. Fettweis has held the Vodafone Endowed Chair for Mobile Communications Systems at TU Dresden and is coordinator of the Cluster of Excellence Center for Advancing Electronics Dresden (cfaed).

CRTD Investigates "Teamwork" of Cells in Insulin Production

Researchers at the Center for Regenerative Therapies Dresden (CRTD), together with col-

leagues from Imperial College London and other research institutes from Great Britain, Canada and Italy, have demonstrated amazing interactions of pancreatic beta cells.

These **work in highly cross-linked networks**, known as islet cells, and their reactions to rising blood sugar levels are coordinated by certain "chief" cells (leader cells). To prove this, the research team developed an **innovative imaging technique** with which they were able to observe the hierarchical relationship of beta cells "in vivo".

The research results were published in the magazine "Nature Metabolism".

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