



The goal of the DFG-GRK 2250 **Dresden International Summer School (DISS)** is to bring talented master and PhD students working on impact resistance of concrete structures and fiber-reinforced cement-based materials together.

The focus will be on use of textile-reinforced concrete (TRC) and strain-hardening cement-based composites (SHCC) for strengthening of existing concrete structures against impact loading. Lectures and exercises will be offered on the following topics:

- Material design and production of high-performance mineral-based composites
- Mechanical characterization and material modelling at high strain rates
- Structural design and numerical simulation of strengthened elements
- Sustainability assessment

## Organizing committee

- Viktor Mechtcherine
- Cesare Signorini
- Martina Awassi
- Ameer Hamza Ahmed
- Hung Le Xuan
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- Ahmed Tawfik

## Secretariat

**Ms. Martina Awassi**

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## Important dates

- **March 31, 2022:** Deadline for applications;
- **April 22, 2022:** Notification of successful candidates
- **June 19 – 24, 2022:** Summer School

## Fees

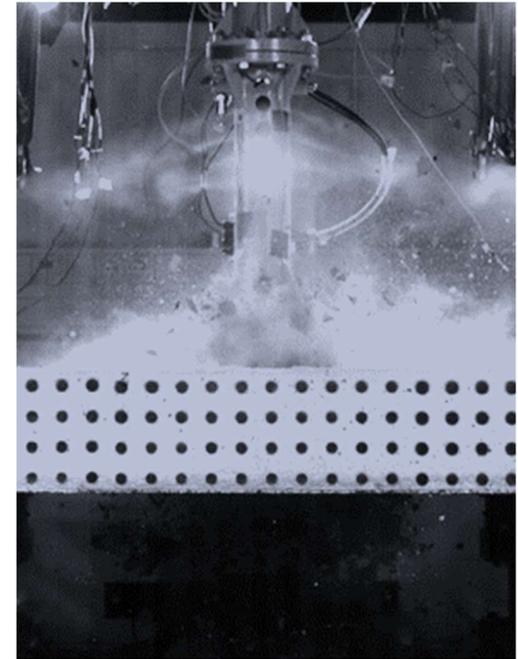
Participation in the DISS 2022 including an attractive social and cultural program **is free of charge to all participants.**

Accommodation (100%) and travel\* (50%) expenses are also covered.

\*Travel costs forfeit refund according to the [DAAD\\_Reisekostenpauschalen 2022](#)



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**DISS 2022**  
2<sup>nd</sup> Dresden  
International  
Summer School

**June 19<sup>th</sup> – 24<sup>th</sup>**

**DFG-GRK 2250**

*“Mineral-bonded composites for  
enhanced structural impact safety”*



## The Venue

**Dresden**, capital of Saxony and host city to the Summer School, is a special place in many ways. It welcomes its visitors with a unique constellation of the river Elbe in harmony with the old city centre. You can still experience traditional Dresden, dating back to the Baroque era with famous sights, such as the Zwinger, Semperoper, cathedral, the recently rebuilt Frauenkirche and many famous art collections (e.g. Grünes Gewölbe).

The **Technische Universität Dresden**, the venue of the Summer School, is one of eleven German Universities of Excellence since its being named as such in June 2012. Its roots date back to 1828. Nowadays, it is the home of learning for about 35,000 students, offers scientific education through 14 different faculties and serves industry with its vast resources.

## How to apply

Well-qualified master and PhD students are encouraged to apply for participation in the School by March 31, 2022 by sending an email to [grk2250@tu-dresden.de](mailto:grk2250@tu-dresden.de) including in a single .pdf file the following documents:

- Curriculum Vitae
- Motivation letter
- Recommendation letter by a professor

**Important note:** due to the limited number of participants not all applicants can be invited to join the Summer School. In cases of equivalent qualifications, the person(s) applying first will be preferred.



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***“No research without  
action, no action  
without research”***

*Kurt Lewin*

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Existing concrete or reinforced concrete structures feature a relatively low resistance to various sorts of impact loading, such as shock, collision, or explosion. The primary goal of the Research Training Group is to bring substantial improvements in the impact-resistance of existing buildings by applying thin layers of strengthening material. By using innovative, mineral-bonded composites, public safety and the reliability of vitally important infrastructure should be significantly enhanced. The scientific basis to be developed will additionally enable to build new, impact-resistant structures economically and ecologically.

