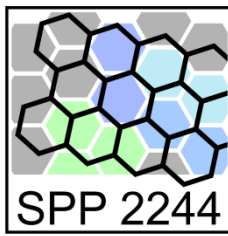


DFG Priority program 2244

2D Materials – Physics of
van der Waals [hetero]structures

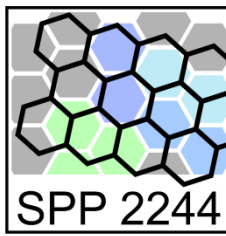
Research focus



Fundamental research goal: To explore and to deeply understand the physical phenomena in 2D vdW materials that are emerging from interlayer interactions, moiré superstructures and/or proximity effects.

- **Objective 1:** explore impact of interlayer interactions on electronics and transport
- **Objective 2:** investigate optical properties emerging from interlayer interactions
- **Objective 3:** collective and correlated phenomena leading to exotic effects
- **Research Area A:** 2D semiconductor heterostructures
- **Research Area B:** control and manipulation of excitons
- **Research Area C:** realization of new topological effect
- **Common Research Area:** PhD student and postdoc exchange program

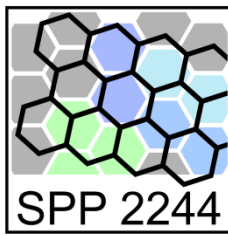
Projects



- **1st funding period:**
 - October 2020 – March 2024
 - 20 funded + 12 associated projects
 - 60 total PIs
 - >200 publications
- **2nd funding period:**
 - April 2024 – March 2027
 - 21 funded + 8 associated projects
 - 54 total PIs

Photoluminescence Topological Insulator Magnetic Semiconductor
Two-Dimensional Material Scanning Tunneling Microscopy
Bismuth Compounds Quantum Hall Effect Tungsten Compounds Twist Angle
Molybdenum Compounds Sulfur Compounds
Magnetic Field Monolayers Heterojunctions Spin Dynamics
Density Heterostructures Semimetals
Interlayer Transition Metal Exciton Graphene
Germanium Boron Nitride Superlattice Magnetism
Transition Metal Di... Electronic Property
Quantum Chemistry Spintronics 2D Material Physics
Spin Polarization Magnetic Property Transition Element
Layered Semiconduct... Superconductivity
Heterojunction Spin-Orbit Coupling Hexagonal Boron Nitride
Van Der Waals Force Lattice Mismatch III-V Semiconductor Iron Compounds
Electronic Structure

Steering Committee



- Prepare reports
- Review applications for Z-project funds
- Organize workshops and summer schools



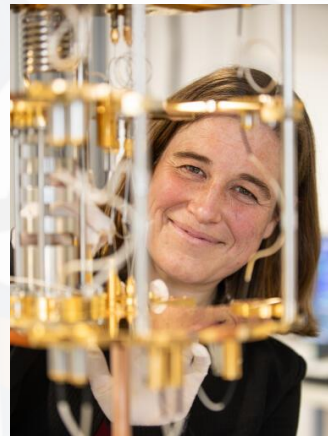
Jaroslav Fabian



Janina
Maultzsch



Christoph
Stampfer



Ursula
Wurstbauer



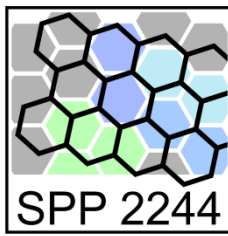
Thomas Heine
(Coordinator)



Bent van Wingerden and
Mikolaj Metelski
(Student Representatives)



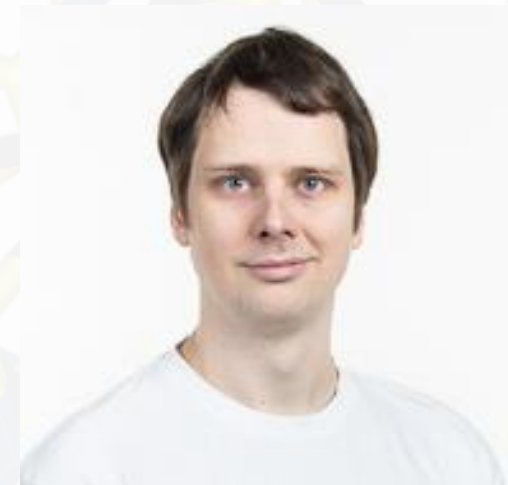
Coordination Office (Z-Project)



- Facilitate collaborations
 - Mailing list
 - Summer schools
 - Workshops
 - Networking funds for PhD student exchange
- Support and monitoring of gender equality measures and early career support
- Monitoring progress
 - Update the website and feed social media
 - Report to DFG after 1st funding period
 - Prepare proposal for 2nd funding period

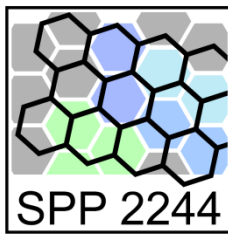


Florian
Arnold



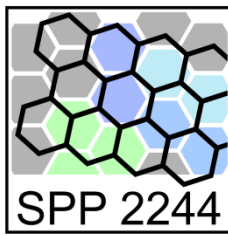
Dr. Miroslav
Položij

How can you profit from the SPP?



- **SPP Office:**
 - Networking funds, travel stipends
 - Submit events and publications to publish on our website
- **PhD exchange program:**
 - ~1 exchange opportunity per PhD student
 - Z-project supports accommodation and travel costs
 - Co-financing (student's project pays for local costs)
 - Send 1-page application to coordination office, approved by Steering Committee

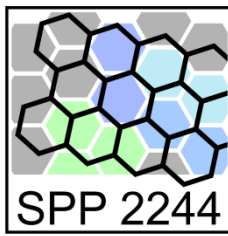
How can you profit from the SPP?



- **Gender equality measures:**

- Family friendly work policy: student helpers/laboratory assistants during pregnancy and nursing periods, home office equipment, childcare during conferences and workshops
- Funds for soft skill trainings
- Send an application if this applies: *Solche Maßnahmen sind beispielsweise die Erhöhung der Anzahl der Wissenschaftlerinnen auf der Ebene der Projektleitung, die Weiterqualifizierung der im Forschungsverbund arbeitenden Nachwuchswissenschaftlerinnen (neben ihrer fachlichen Qualifizierung) für ihre wissenschaftliche Karriere oder die familien-freundlichere Gestaltung des Arbeitsplatzes "Wissenschaft".*

How can you profit from the SPP?



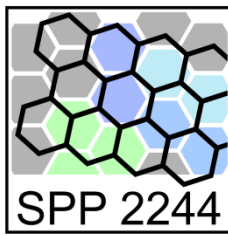
- **Summer schools and networking events:**

- Summer School „Polaritons and spectroscopic methods“, Berlin
- Mid-term report colloquium, RWTH Aachen (Autumn 2025)
- International conference (Spring 2026)
- Summer School 2026: Satellite event of final workshop (t.b.d.)

- **Workshops:**

- “Finish It! – How to Complete and Write Up Your PhD Research”, online workshop on Tuesday, October 7: <https://tud.link/91nmd2> (3 places remain)
- Full online workshop on “Grants & Proposal Writing” in winter term 2025/26, depending on interest ⇒ please tell us if you would like to join

How to reach us?



- Main address: **dfg-spp2244@tu-dresden.de**
 - Contact for:
 - Networking funds
 - Gender equality measures
 - Also used to submit things for website:
 - Webcasts/events
 - Publications
- Mailing list: **2dmp-spp2244**
 - ⇒ Subscription link: <https://tud.link/866fyd>
(also available on our website under Contact → FAQs)

We wish you an interesting
and fun Summer School!