

SPP 2244

WELCOME TO THE FINAL WORKSHOP OF THE 1ST FUNDING PERIOD

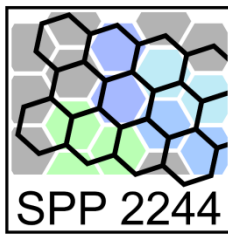
Timeframe of first funding period

- Submission of initial proposal: Oct. 2018, approved in March 2019
- Deadline for proposal submission: Nov. 2019, reviewed Feb. 2020
- **Start of first funding period: Oct. 1, 2020**
- Kickoff meeting: October 2020, Erfurt
- Midterm report colloquium: March 2022, Dresden
- Final workshop of the first funding period: March 2023, Bad Honnef
- End of first funding period: Sept. 30, 2023
+ 6-month extension until March 31, 2024

Extension of first funding period

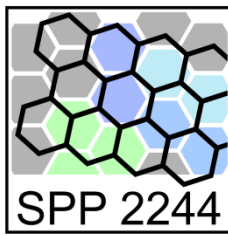
- Agreed at midterm meeting after survey of PIs
- Cost-neutral extension for all projects possible
 - Already approved by DFG
 - Projects must apply for extension individually by mail to secretary of Dr. Mößle or via elan portal
 - Can also run parallel to second phase if needed
- Additional funds needed: “Sachbeihilfe/Normalverfahren” required

Timeframe of second funding period

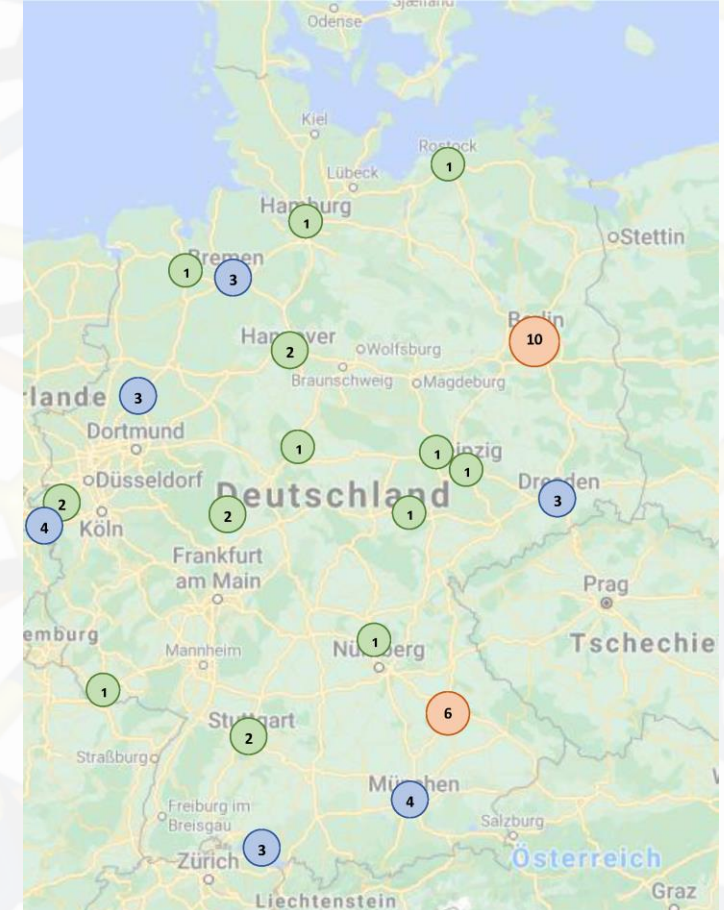
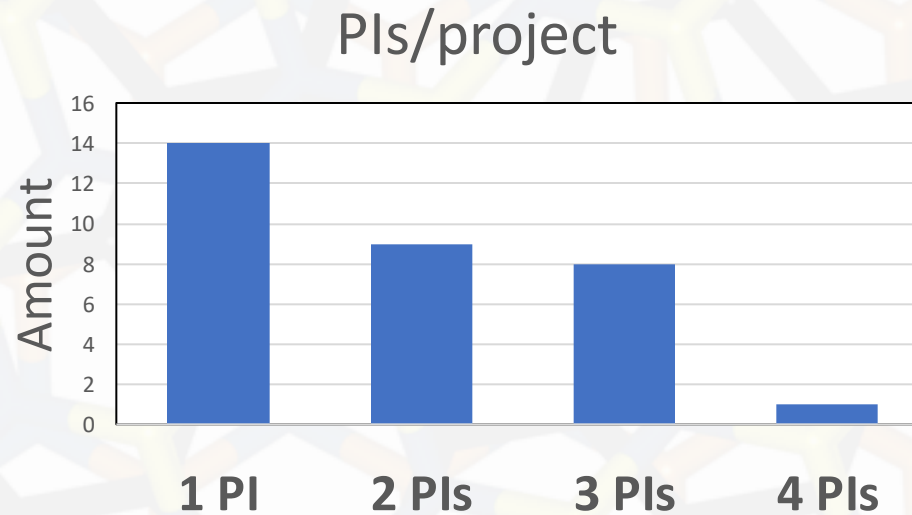


- **Proposal deadline: July 1, 2023**
- Review colloquium: Oct. 29-31, 2023, Bad Honnef
- Begin of second funding period: **April 1, 2024**
- End of funding: March 2027

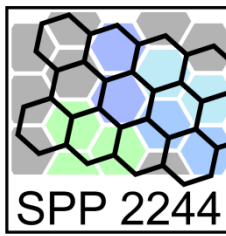
Projects and PIs



- 32 projects
 - 21 funded
 - 11 associated
- 60 PIs



Steering Committee



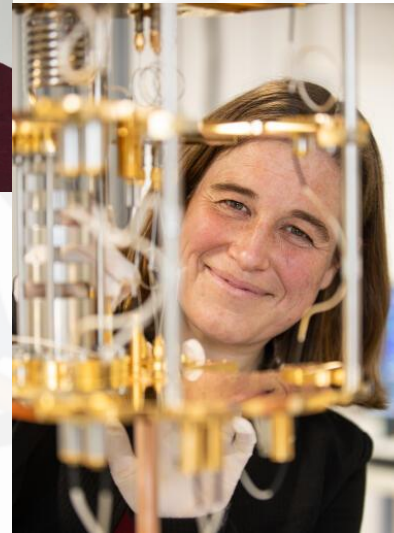
Jaroslav Fabian



**Janina
Maultzsch**



**Christoph
Stampfer**



**Ursula
Wurstbauer**

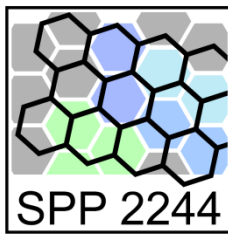


**Thomas Heine
(Coordinator)**



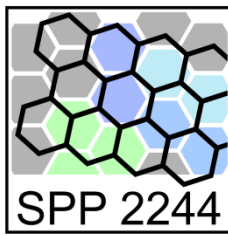
**Hossein Ostovar
(Student
Representative)**

How can you profit from the SPP added value

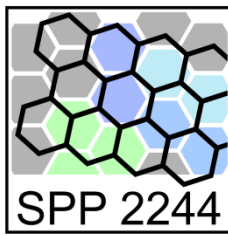


- SPP office
- Networking funds (PhD exchange program)
- Workshops and schools
- Gender equality measures
- Start-up funding for prospective young scientists

SPP Office



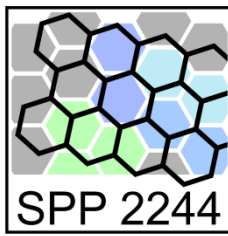
PhD Exchanges



- Funding: ~1 exchange opportunity per PhD student per year
- Central project covers travel costs and accomodation
- Application: short project description and estimated travel costs sent to the SPP office, decision within a few days by steering committee
- Past exchanges:
 - Sept. 2021: Oisín Garrity, Berlin → Rostock
 - Dec. 2021: Chirag Palekar, Berlin → Gießen
 - May 2022: Bartosz Szczefanowicz, Saarbrücken → Aachen
 - June 2022: Lukas Powalla, Gordon Research Conference
 - Jan. 2023: Anna Seiler, Isabell Weimer, Göttingen → Stuttgart

Where there more
exchanges?
Please tell us!

Workshops



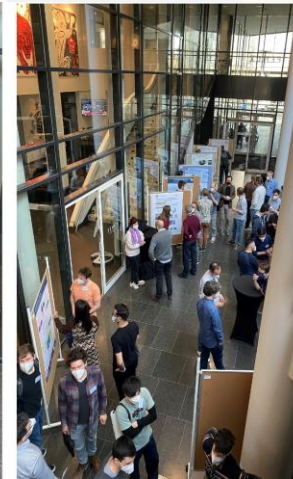
Kickoff meeting

- Time: Oct. 12/13, 2020
- Location: Dompalais Erfurt (hybrid)
- Participants: ~60



Midterm report colloq.

- Time: March 21-23, 2022
- Location: Penck Hotel, Dresden
- Participants: 87

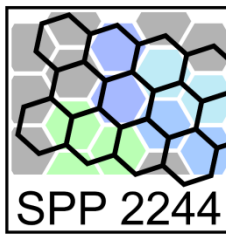


Final workshop

- Time: March 15-18, 2023
- Location: Physikzentrum Bad Honnef
- Participants: ~90

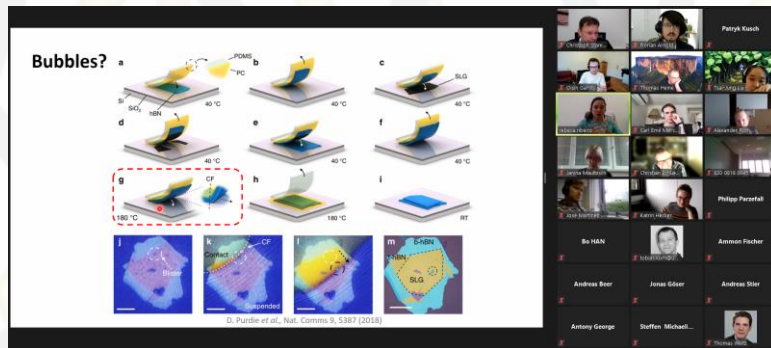


Sommer schools



1st summer school

- Topic: "vdW assembly – more than playing Lego"
- Time: July 2021
- Location: virtual



2nd summer school

- Topics: RDM, SOC, moiré physics, sample fabrication (panel disc.)
- Time: September 2022
- Location: Niederalteich

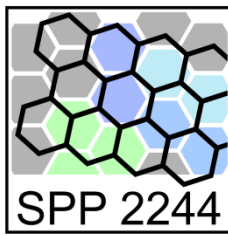


3rd summer school

- Topic: simulation of 2D materials
- Time: August 2023
- Location: Dresden
- Registration starts in May



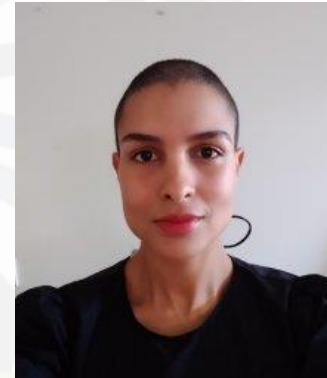
Gender equality measures



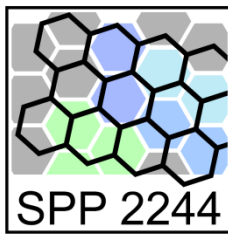
- **Only a tiny fraction used by now**
- Family friendly work policy
 - Student helper (SHK)/laboratory assistant during pregnancy or nursing periods
 - Home office equipment
 - Childcare costs during conferences and workshops
- Training and Coaching
- Encouraging young women to pursue a science degree
 - Participation at Girl's days
 - Promoting “Women in Science” conferences (i.e. DPG Physikerinnentagung)
- **Please contact the SPP Office so we can help you to use these funds**

Start-Up Fundings

- Aim: support young investigators to follow their own research idea, related to physics in 2D vdW [hetero]structures
- Total awarded funding: 65 000€
- Round 1: (2022)
 - Bárbara Rosa (TU Berlin)
 - Pedro Soubelet (TU Munich)
 - Emeline Nysten (WWU Münster)
- Round 2: (2023)
 - Bo Han (University Oldenburg)
 - Swarup Deb (University of Rostock)



Publications

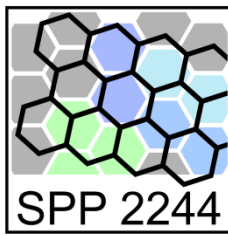



- **71 papers published** related to SPP
 - 2020: 4
 - 2021: 34
 - 2022: 32

Please check that there
are no papers missing in
our list of publications!






- **Acknowledge the SPP:** “This project has been funded by Deutsche Forschungsgemeinschaft within the Priority Program SPP 2244 “2DMP” “. *You may add your individual project reference.*
- **Please inform the SPP Office if you have a new paper published so that we can share it on our website.**

Publications: <https://2dmp.tu-dresden.de>



 TECHNISCHE UNIVERSITÄT DRESDEN

2DMP



 SPP 2244

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

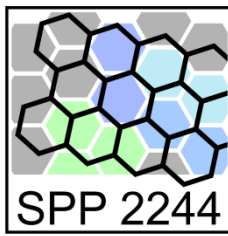
DFG Priority program 2244

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[In the Media](#)

Publications



- **Twist-Dependent Intra- and Interlayer Excitons in Graphene Bilayers**
V. Villafañe, M. Kremser, R. Hübner, M. M. Petrić, N. P. Wilson, A. V. Stier, K. Müller, M. Florian, A. Steinhoff, J. J. Finley
PRL (2023) DOI:10.1103/PhysRevLett.130.026901 
- **Exploring the effect of dielectric screening on neutral and charged-exciton properties in monolayer and bilayer MoTe₂**

Some top papers



Article | [Open Access](#) | [Published: 10 March 2021](#)

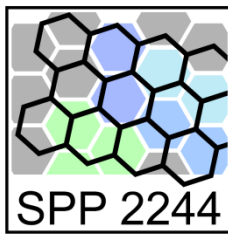
Twist-angle engineering of excitonic quantum interference and optical nonlinearities in stacked 2D semiconductors

[Kai-Qiang Lin](#) , [Paulo E. Faria Junior](#), [Jonas M. Bauer](#), [Bo Peng](#), [Bartomeu Monserrat](#), [Martin Gmitra](#), [Jaroslav Fabian](#), [Sebastian Bange](#) & [John M. Lupton](#) 

[Nature Communications](#) **12**, Article number: 1553 (2021) | [Cite this article](#)

4984 Accesses | **14** Citations | **4** Altmetric | [Metrics](#)



Some top papers



ADVANCED MATERIALS

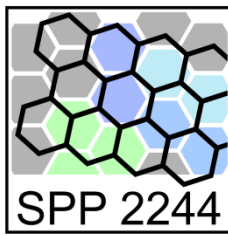
Research Article |  Open Access |  

Large-Scale Mapping of Moiré Superlattices by Hyperspectral Raman Imaging

Kai-Qiang Lin , Johannes Holler, Jonas M. Bauer, Philipp Parzefall, Marten Scheuck, Bo Peng, Tobias Korn, Sebastian Bange, John M. Lupton, Christian Schüller 


First published: 09 July 2021 | <https://doi.org/10.1002/adma.202008333>  | Citations: 1

Some top papers



Article | [Open Access](#) | [Published: 07 June 2022](#)

Berry curvature-induced local spin polarisation in gated graphene/WTe₂ heterostructures

[Lukas Powalla](#), [Jonas Kiemle](#), [Elio J. König](#), [Andreas P. Schnyder](#), [Johannes Knolle](#), [Klaus Kern](#), [Alexander Holleitner](#), [Christoph Kastl](#) & [Marko Burghard](#) 

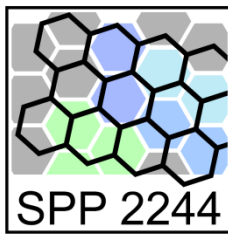
[Nature Communications](#) **13**, Article number: 3152 (2022) | [Cite this article](#)

4246 Accesses | **5** Altmetric | [Metrics](#)

Announcement text for 2nd funding period

- **Similar to first funding period**
- **No change in focus** of SPP planned
- SPP as carrier for joint efforts of heterostructure research in Germany => continue having a relatively broad/open scientific scope
- Funding for 2nd phase will increase from 6.7 Mio € to **7 Mio €**
- **Final report** after 2nd funding period:
 - Virtual journal of research articles (approved by DFG)
 - Articles must be open access + peer reviewed
 - Article published = reporting duty done

Final workshop of the 1st funding period



- All projects should present their progress during the 1st phase
 - Single PI: 10'
 - Multiple PIs: 15'
 - Discussions: 5'
 - Sessions chaired by PhD students
- Poster sessions for additional discussions
- Use this meeting and the long coffee breaks to discuss potential collaborations and projects for the 2nd funding period
- DFG will be present on Friday (Michael Mößle, Joanna Kowalska)

Enjoy the meeting!