

## Tuesday, June 28th 2016 (House of Science Bremen/Downtown)

08:00 - 08:50	Registration
08:50 - 09:00	Opening and welcome, Thomas Frauenheim
<b>Session:</b>	<b>Carbon and other hexagonal nanostructures</b> <i>Chair: Young Hee Lee</i>
09:00 - 09:40	Zhongfan Liu, Beijing University (China) <i>2D nanocarbons: a road towards controlled growth</i>
09:40 - 10:20	Takashi Taniguchi, National Institute for Materials Science, Tsukuba (Japan) <i>Synthesis &amp; properties of hexagonal boron nitride single crystals</i>
10:20 - 10:50	Coffee Break
10:50 - 11:30	Zhongfang Chen, University of Puerto Rico, San Juan (US) <i>Planar hypercoordinated carbon in 2D materials</i>
11:30 - 12:10	Hannu-Pekka Komsa, Aalto University (Finland) <i>Defects in 2D materials: their production under irradiation, evolution and properties from 1st principles</i>
12:10	Group photo
12:15 - 14:00	Lunch Break (Restaurant Stadtwirt) and Coffee
<b>Session:</b>	<b>Topology and superconductivity</b> <i>Chair: Tim O. Wehling</i>
14:00 - 14:40	Jinfeng Jia, Shanghai Jiao Tong University (China) <i>Epitaxial growth of two-dimensional stanene and artificial topological superconductors</i>
14:40 - 15:20	Binghai Yan, Max Planck Institute, Dresden (Germany) <i>Discovery of a new type of topological Weyl semimetal in the layered transition metal dichalcogenide MoTe<sub>2</sub></i>
15:20 - 15:50	Coffee Break
15:50 - 16:30	Elena Roxana Margine, Binghamton University, New York (US) <i>Superconducting carbon in two dimensions</i>
16:30 - 17:10	Gunnar Schoenhoff, University of Bremen (Germany) <i>Coulomb interaction in transition metal dichalcogenides: effects on many-body instabilities</i>
17:10 - 17:50	Yong Xu, Tsinghua University, Beijing (China) <i>Recent research progress of two-dimensional stanene</i>
19:00 - 21:30	Welcome Reception (Bremen Town Hall)

## Wednesday, June 29th 2016 (House of Science Bremen/Downtown)

<b>Session:</b>	<b>Topology and superconductivity (continued)</b> <i>Chair: Hannu-Pekka Komsa</i>
09:00 - 09:40	Alexander Steinhoff, University of Bremen (Germany) <i>Optical properties and carrier dynamics in transition metal dichalcogenides</i>
09:40 - 10:20	Thomas Heine, Leipzig University (Germany) <i>Strong quantum confinement and topological phases in two-dimensional crystals</i>
10:20 - 10:50	Coffee Break
<b>Session:</b>	<b>TMDCs: optical properties and carrier dynamics</b>
10:50 - 11:30	Michael Rohlfing, University of Muenster (Germany) <i>Optical spectra of atomically thin semiconductors from ab-initio many-body perturbation theory</i>
11:30 - 12:10	Isabella Gierz, Max Planck Institute, Hamburg (Germany) <i>Electron dynamics in low dimensions: a time- and momentum-resolved view</i>
12:10 - 14:00	Lunch Break (Restaurant Stadtwirt) and Coffee
<b>Session:</b>	<b>TMDCs: optical properties and carrier dynamics (continued)</b> <i>Chair: Yandong Ma</i>
14:00 - 14:40	Christoph Gadermaier, Jožef Stefan Institute, Ljubljana (Slovenia) <i>Femtosecond exciton and charge dynamics and unusual Stark effect in mono- and few-layer transition metal dichalcogenides</i>
14:40 - 15:20	Sean C. Smith, University of New South Wales, Sydney (Australia) <i>Electrocatalytic gas capture on 2D nanomaterials</i>
15:20 - 15:50	Coffee Break
15:50 - 16:30	Jonathan Finley, Technical University of Munich (Germany) <i>Electrical control of the optical response of atomically thin semiconductors</i>
16:30 - 17:10	Ji-Hee Kim, Sungkyunkwan University, Suwon (South Korea) <i>Ultrafast exciton dynamics in 2D TMDC materials</i>
17:10 - 17:50	<b>Bus Pickup to Conference Dinner</b> (Pickup Venue: RAMADA Überseehotel Bremen)
19:00 - 22:30	Conference Dinner (Juergenshof)

## Thursday, June 30th 2016 (House of Science Bremen/Downtown)

<b>Session:</b>	<b>Hetero-structures and devices</b> <i>Chair: Beata Kardynal</i>
09:00 - 09:40	David Abergel, Nordita, KTH Institute for Technology & Stockholm University (Sweden) <i>Two-dimensional lateral heterostructures</i>
09:40 - 10:20	Young Hee Lee, Sungkyunkwan University, Suwon (South Korea) <i>Tunable optical and electrical properties in 2D semiconductors and their optoelectronic applications</i>
10:20 - 10:50	Coffee Break
10:50 - 11:30	Hyun Seok Lee, Sungkyunkwan University, Suwon (South Korea) <i>Interface between highly polar and 2D semiconductors</i>
11:30 - 12:10	Alexey Chernikov, University of Regensburg, (Germany) <i>Optical properties of 2D materials</i>
12:10 - 14:00	Lunch Break (Restaurant Stadtwirt) and Coffee
<b>Session:</b>	<b>Hetero-structures and devices (continued)</b> <i>Chair: Gotthard Seifert</i>
14:00 - 14:40	Aijun Du, Queensland University of Technology, Brisbane (Australia) <i>Predicting new 2D materials and exploring the possible applications in energy conversion</i>
14:40 - 15:20	Heejun Yang, Sungkyunkwan University, Suwon (South Korea) <i>Novel 2D interfaces with silicon, graphene, MoTe<sub>2</sub> and Ca<sub>2</sub>N</i>
15:20 - 16:00	Dong Hee Son, Texas A&M University, College Station (US) <i>Photoluminescence and polarization properties of colloidal single layer TMDC quantum dots</i>
17:25	Poster Mounting
17:30 - 20:30	Poster Session and Catering Buffet

## Friday, July 1st 2016 (House of Science Bremen/Downtown)

<b>Session:</b>	<b>TMDCs: electronic properties</b> <i>Chair: Thomas Brumme</i>
09:00 - 09:40	Biplab Sanyal, Uppsala University (Sweden) <i>Functional 2D transition metal dichalcogenides: defects, adsorption and magnetism</i>
09:40 - 10:20	Gianluca Fiori, University of Pisa (Italy) <i>Multi-scale modelling of devices based on two-dimensional materials</i>
10:20 - 10:50	Coffee Break
10:50 - 11:30	Agnieszka-Beata Kuc, Leipzig University (Germany) <i>Modulation of electronic structure in low-dimensional transition-metal dichalcogenides</i>
11:30 - 12:10	Michael Bauer, University of Kiel (Germany) <i>Electronic structure and dynamics at surfaces of 2D TMDCs</i>
12:10 - 12:50	Gotthard Seifert, Dresden University of Technology (Germany) <i>Layered nanostructures - electronic and mechanical properties</i>
12:50 - 13:00	Closing remarks: Tim O. Wehling

### Conference Organisers

Thomas Frauenheim	University of Bremen BCCMS www.bccms.uni-bremen.de
Tim O. Wehling	University of Bremen Institute of Theoretical Physics www.itp.uni-bremen.de
Thomas Heine	Leipzig University Department of Chemistry & Mineralogy https://woi.chemie.uni-leipzig.de
Young Hee Lee	SungKyunKwan University https://cinap.ibs.re.kr/html/cinap_en/people/people_0209.html
Yandong Ma	Leipzig University Department of Chemistry & Mineralogy https://woi.chemie.uni-leipzig.de

<http://www.bccms.uni-bremen.de/evens/2016/cecam-tm2dm/>

