

## Programme EU-China Workshop

### *The 2<sup>nd</sup> Graphene Flagship EU-China Workshop on Graphene and related 2D materials*

**07 - 08 December, 2018**

**Hotel Pullman Dresden Newa**

Prager Straße. 2C, 01069 Dresden, Germany

**Workshop chairs:** Prof. Jari Kinaret (Sweden) and Prof. Hongjun Gao (Republic of China)

**Programme chairs:** Prof. Xinliang Feng (Germany). Dr. Francesco Bonaccorso (Italy) and Prof. Shixuan Du (Republic of China), Prof. Hongjun Gao (Republic of China)

<i>December 7, 2018</i>		
<b>08:30</b>	<b>Registration and welcome</b>	
08:40	<i>Xinliang Feng</i>	Welcome Words and opening workshop
08:50	<i>Jari Kinaret</i>	Graphene Flagship
09:00	<i>Hongjun Gao</i>	tba
<b>Session 1: Materials Growth and Heterostructures</b>		
09:25	<i>Roman Fasel</i>	Topological quantum phases in graphene nanoribbons
09:50	<i>Yeliang Wang</i>	Epitaxial Growth and Properties of 2D Monolayer Antimonene
10:15	<i>Vladimir Falko</i>	Infrared and THz inter-subband optics of few-layer 2D materials
<b>10:40 – 11:00</b>	<b>Coffee Break</b>	
<b>Session 2: Materials Growth and Heterostructures</b>		
11:00	<i>Xiao Lin</i>	Construction of Bilayer PdSe <sub>2</sub> Island on Graphene
11:25	<i>Ping-Heng Tan</i>	Interfacial Interactions in van der Waals Heterostructures of MoS <sub>2</sub> and Graphene flakes
11:50	<i>Bin Wu</i>	Exploring controlled growth and dynamic formation of 2D materials
12:15	<i>Andrea Ferrari</i>	tba
<b>12:40 – 13:45</b>	<b>Lunch</b>	

<b>Session 3: Materials Growth and Heterostructures</b>		
13:45	<i>Shixuan Du</i>	tba
14:10	<i>Yu-Yang Zhang</i>	One-Third-Hydrogenated Graphene: A New Type of Graphene-Based Two-Dimensional Material
14:35	<i>Xiaoming Xie</i>	Synthesis and characterizations of graphene and graphene/superconductor hetero-structures
15:00	<i>Stephan Roche</i>	Charge, Thermal and Spin Transport in Graphene Composites & Polycrystalline Heterostructures
15:25	<i>Paolo Samori</i>	tba
<b>15:50 – 16:15</b>	<b>Coffee Break</b>	
<b>Session 4: GRM based devices</b>		
16:15	<i>Wencai Ren</i>	Graphene Oxide: Green Synthesis and Membrane Applications
16:40	<i>Xiaodong Zhuang</i>	Rational Design 2D Porous Organic Materials for Energy Storage and Conversion
17:05	<i>Emmanuel Kymakis</i>	Graphene and related 2D materials for perovskite solar cell applications
17:30	<i>Francesco Bonaccorso</i>	tba
17:55	Wrap-up of the first day	
18:15	<b>Visiting Dresden Christmas Market</b>	
<b>19:30 – 22:30</b>	<b>Dinner at Restaurant Genuss-Atelier</b> (departure from hotel at 19:15)	

<b>December 8, 2018</b>		
<b>Session 5: GRM based devices</b>		
09:00	<i>Vincenzo Palermo</i>	Selective gas permeation in graphene oxide-polymer self-assembled multilayers
09:25	<i>Kaihui Liu</i>	Growth and Application of Meter-sized Single-crystal Graphene
09:50	<i>Aldo Di Carlo</i>	The role of graphene and other 2D materials in Perovskite photovoltaics
10:15	<i>Guangyu Zhang</i>	Scalable monolayer MoS <sub>2</sub> for electronic devices
<b>10:40 – 11:00</b>	<b>Coffee Break</b>	
<b>Session 6: GRM based devices</b>		
11:00	<i>Georg Duesberg</i>	Hybrid electronic devices with 2D Materials

11:25	<i>Lihong Bao</i>	Graphene and Beyond: Electronic Devices and Transport Properties
11:50	<i>Gianluca Fiori</i>	Promises and perspectives of two-dimensional materials for electronic applications
12:15	<i>Wenguang Zhu</i>	Theoretical Design of 2D Ferroelectric and Multiferroic Materials
<b>12:40 – 13:30</b>	<b>Lunch</b>	
<b>Session 7: Physics</b>		
13:30	<i>Qing Dai</i>	tba
13:55	<i>Kehui Wu</i>	Polymorphism of Elemental 2D Materials
14:20	<i>Wei Ji</i>	Interlayer engineering in tuning physical properties of two-dimensional materials
14:45	<i>Annick Loiseau</i>	Understanding optical absorption and luminescence in hBN: a tool for a characterisation metrics from bulk to the monolayer
<b>15:10 – 15:30</b>	<b>Coffee Break</b>	
<b>Session 8: Physics</b>		
15:30	<i>Wu Zhou</i>	Exploring strain effect at 2D material interfaces at the atomic scale
15:55	<i>Chendong Zhang</i>	Atomic and electronic structures of transition metal dichalcogenides heterostructures
<b>16:20 – 17:15</b>	<b>Discussions about future collaborations</b>	
<b>17:15</b>	<i>Xinliang Feng</i>	<b>End of the workshop</b>

## List of participants

Title	Last name	First name	Institution	Country
Dr	Lihong	Bao	Institute of Physics, Chinese Academy of Sciences	China
Dr	Francesco	Bonaccorso	Graphene Labs, Italian Institute of Technology	Italy
Dr	Ana-Maria	Ciubotaru	European Science Foundation	France
Professor	Qing	Dai	National Center for Nanoscience and Technology, CAS	China
Professor	Aldo	Di Carlo	University of Rome Tor Vergata	Italy
Professor	Shixuan	Du	Institute of Physics, CAS	China
Professor	Georg	Duesberg	Universitaet der Bundeswehr Munich	Germany
Professor	Volodya	Falko	The university of Manchester, National graphene institute	United Kingdom
Professor	Roman	Fasel	Empa, Swiss Federal Laboratories for Materials Science and Technology	Switzerland
Professor	Xinliang	Feng	Dresden University of Technology	Germany
Professor	Andrea	Ferrari	Cambridge Graphene Centre	United Kingdom
Professor	Gianluca	Fiori	University of Pisa	Italy
Professor	Hong-Jun	Gao	Institute of Physics, CAS	China
Professor	Wei	Ji	Renmin University of China	China
Professor	Jari	Kinaret	Chalmers University	Sweden
Professor	Emmanuel	Kymakis	TEI of Crete	Greece
Professor	Xiao	Lin	University of Chinese Academy of Sciences	China
Professor	Kaihui	Liu	Peking University	China
Dr	Annick	Loiseau	Centre National de la Recherche Scientifique, Onera	France
Professor	Vincenzo	Palermo	Istituto per la Sintesi Organica e Fotoreattività (ISOF) - CNR	Sweden
Professor	Wencai	Ren	Institute of Metal Research, Chinese Academy of Sciences	China
Professor	Stephan	Roche	ICN2	Spain
Professor	Paolo	Samori	University of Strasbourg	France
Dr	Ali	Shaygan Nia	Dresden University of Technology	Germany
Professor	Ping-Heng	Tan	Institute of Semiconductors, Chinese Academy of Sciences	China
Professor	Yeliang	Wang	Beijing Institute of Technology	China
Dr	Bin	Wu	Institute of Chemistry, Chinese Academy of Science, Beijing	China
Professor	Kehui	Wu	Institute of Physics, Chinese Academy of Sciences	China
Professor	Xiaoming	Xie	Shanghai Institute of Microsystem and Information Technology, CAS	China
Professor	Yu-Yang	Zhang	University of Chinese Academy of Sciences	China
Professor	Chendong	Zhang	Wuhan University	China

Professor	Guangyu	Zhang	Institute of Physics, CAS	China
Professor	Wu	Zhou	University of Chinese Academy of Sciences	China
Professor	Wenguang	Zhu	University of Science and Technology of China	China
Professor	Xiaodong	Zhuang	Shanghai Jiao Tong University	China