

MONDAY 4th JULY 2016

18:00–20:00	Registration
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TUESDAY 5th JULY 2016

8:00–8:45	Registration	
8:45–9:00	FLATLANDS 2016 OPENING CEREMONY	
CHAIR: Reshef Tenne		
9:00–9:35	Andras Kis (EPFL, Switzerland) 2D dichalcogenide electronic materials and devices	●
9:35–9:55	Maja Remškar (Jožef Stefan Institute, Slovenia) Quasi-two-dimensional Mo-S-I crystals	●
9:55–10:30	Janice L. Musfeldt (University of Tennessee, USA) High pressure vibrational properties of WS ₂ nanotubes	●
COFFEE BREAK		
CHAIR: Janice L. Musfeldt		
10:55–11:30	Paulina Plochocka (Laboratoire National des Champs Magnétiques Intenses, France) Magneto excitons in atomically thin TMDs	●
11:30–11:50	Maya Bar Sadan (Ben Gurion University, Israel) Designing doped transition metal dichalcogenides as improved photocatalysts	●
11:50–12:25	Liu Zheng (Nanyang University, Singapore) Development of novel transitional metal dichalcogenides using chemical vapour deposition	●
12:25–12:45	Lena Yadgarov (Tel Aviv University, Israel) Near-field imaging of exciton-plasmon wave functions confined in WS ₂ nanotube	●
LUNCH		
CHAIR: Maja Remškar		
14:15–14:50	Alan Seabaugh (University of Notre Dame, USA) Electric-double-layer field-effect transistors using polyethylene-oxide cesium perchlorate on two-dimensional materials	●
14:50–15:10	Yen-Cheng Kung (EPFL, Switzerland) Flexible TFTs and circuits based on monolayer MoS ₂	●
15:10–15:45	Claudia Backes (University of Heidelberg, Germany, and Trinity College Dublin, Ireland) How to make monolayer-rich liquid-exfoliated 2D materials suitable for fundamental studies	●
15:45–16:05	Edward A. Lewis (University of Manchester, United Kingdom) Top-down and bottom-up routes to solution processable nanosheets: size control, doping, and applications	●
16:05–16:25	Ravi Sundaram (Oxford Instruments Plasma Technology, United Kingdom) CVD growth of 2-dimensional MoS ₂ and heterostructures with graphene	●
COFFEE BREAK		
CHAIR: Paulina Plochocka		
16:50–17:25	Thomas Heine (University of Leipzig, Germany) Noble metal transition metal dichalcogenides	●
17:25–17:45	Andrew Harvey (Trinity College Dublin, Ireland) Determination of length from scattering spectra of liquid exfoliated layered double hydroxides and their use for electrochemical applications	●
17:45–18:05	Mathieu Massicotte (ICFO, Spain) Photo-thermionic effect in graphene-based heterostructures	●
18:05–18:25	Joe Wilkes (Cardiff University, United Kingdom) Dipolar exciton-polaritons in electric and magnetic fields	●
18:30–21:00	POSTER SESSION	

WEDNESDAY 6th JULY 2016

CHAIR: Andras Kis		
8:45–9:30	Reshef Tenne (Weizmann Institute of Science, Israel) 2D materials: macroscopic and nanoscopic viewpoint	●
9:30–9:50	Nikos Papadopoulos (TU Delft, The Netherlands) Boron nitride encapsulated MoS ₂ photodetectors with 1T/1T'-MoS ₂ electrodes	☉
9:50–10:10	Conor P. Cullen (Trinity College Dublin, Ireland) X-ray photoelectron spectroscopy study of the reversible functionalisation of MoS ₂	☉
10:10–10:30	Bojana Višić (Weizmann Institute of Science, Israel) Optical properties of WS ₂ nanotubes	☉
COFFEE BREAK		
CHAIR: Thomas Heine		
10:55–11:30	Dongwon Yoo (Yonsei University, South Korea) Effective chemical approach for single- to multi-layer two-dimensional transition metal chalcogenide nanosheets	☉
11:30–11:50	Leonardo Medrano Sandonas (TU Dresden) Quantum thermal transport in two-dimensional materials: a NEGF-DFTB study	☉
11:50–12:25	Thomas Mueller (Vienna University of Technology, Austria) Generation and detection of light in 2D materials and heterostructures	☉
12:25–12:45	Nikodem Czechowski (Institute of Physics, PAS, Poland) Enhancement of photoluminescence intensity of atomically flat, liquid exfoliated WS ₂ monolayers utilizing plasmon excitation	☉
LUNCH		
CHAIR: Tobias Korn		
14:15–14:50	Janina Maultzsch (TU Berlin, Germany) Resonance Raman spectroscopy and excitons in few-layer 2D materials	☉
14:50–15:10	Tsachi Livneh (Departments of Physics, NRCN, Israel) High pressure and low temperature Raman scattering in inorganic fullerenes of MoS ₂	☉
15:10–15:45	Giulio Cerullo (Politecnico di Milano, Italy) Ultrafast optical response of single-layer MoS ₂	☉
15:45–16:05	Marc Raupach (Vrije University, The Netherlands) Developing a method to calculate response properties for two-dimensional materials in the BAND program	☉
16:30–19:30	EXCURSION	
19:30–22:00	CONFERENCE DINNER	

THURSDAY 7th JULY 2016

CHAIR: Maya Bar Sadan		
8:45–9:20	Takayoshi Sasaki (National Institute for Materials Science, Japan) Function design via organization of 2D oxide nanosheets at nano- to mesoscale	●
9:20–9:40	Egbert Zojer (Graz University of Technology, Austria) Electrostatic design of the electronic properties of 2D materials	●
9:40–10:15	Niall McEvoy (Trinity College Dublin, Ireland) Thermally assisted conversion – a versatile route for the synthesis of transition metal dichalcogenides	●
10:15–10:35	Elena del Corro (Academy of Science of the Czech Republic) Uniaxial compression in monolayer MoS ₂ and WS ₂	●
COFFEE BREAK		
CHAIR: Giulio Cerullo		
10:55–11:30	Ronen Rapaport (The Hebrew University of Jerusalem, Israel) Two-dimensional dipolar exciton fluids	●
11:30–11:50	Tetiana Borzda (Jožef Stefan Institute, Slovenia) Mechanism of charge carrier generation in few-layer MoS ₂	●
11:50–12:25	Goki Eda (National University of Singapore, Singapore) Electro-optical properties of monolayer semiconductors	●
12:25–12:45	Victor Vega Mayoral (Jožef Stefan Institute, Slovenia) Relaxation processes of photogenerated charges in MoS ₂ and WS ₂	●
LUNCH		
CHAIR: Claudia Backes		
14:15–14:50	Tobias Korn (University of Regensburg, Germany) Twist-induced tuning of interlayer coupling in monolayer dichalcogenide heterostructures	●
14:50–15:10	Daniele Vella (Jožef Stefan Institute, Slovenia) Optical spectroscopy on monolayer MoS ₂ transistors	●
15:10–15:45	Valeria Nicolosi (Trinity College Dublin, Ireland) Processing and applications of liquid-phase exfoliated two-dimensional nanosheets	●
15:45–16:05	Nataša Vujčić (Institute of Physics, Croatia) Optical properties of WS ₂ /MoS ₂ heterostructures from chemical vapor deposition	●
16:05–16:25	Artem Mishchenko (University of Manchester, United Kingdom) Tunnelling in van der Waals heterostructures	●
COFFEE BREAK		
CHAIR: Egbert Zojer		
16:50–17:25	Clotilde S. Cucinotta (Trinity College Dublin, Ireland) A theoretical ride over 2D landscapes	●
17:25–17:45	Dmitry Ovchinnikov (EPFL, Switzerland) Electrical transport properties of ReS ₂ with polymer electrolyte gating in the high-doping limit	●
17:45–18:05	Agnieszka Kuc (University of Leipzig, Germany) Electronic properties of 2D transition-metal chalcogenides beyond MoS ₂	●
18:05–18:25	Jens Kunstmann (TU Dresden, Germany) The importance of steric effects for interlayer interactions in 2D homo- and heterostructures	●
18:25–18:45	Juan F. Sánchez-Royo (University of Valencia, Spain) Morphological manipulation of the luminescent response of atomically thin indium selenide nanosheets	●

FRIDAY 8th JULY 2016

CHAIR: Niall McEvoy		
8:45–9:20	Andor Kormányos (University of Konstanz, Germany) Magnetoconductance oscillations and edge states in semiconducting monolayer transition metal dichalcogenides	●
9:20–9:40	Matej Prijatelj (Jožef Stefan Institute, Slovenia) Ambient intercalation and rapid expansion of MoS ₂ crystals	●
9:40–10:15	Andres Castellanos-Gomez (IMDEA Nanoscience, Spain) Novel narrow gap 2D semiconductors for optoelectronics and straintronics	●
10:15–10:35	Dumitro Dumcenco (EPFL, Switzerland) CVD growth of transition metal diselenides	●
COFFEE BREAK		
CHAIR: Thomas Mueller		
10:55–11:30	Dragan Mihailović (Jožef Stefan Institute, Slovenia) Ultrafast memristive switching utilising hidden collectively ordered many body quantum states in 1T-TaS ₂	●
11:30–11:50	Deniz Cakir (University of Antwerp, Belgium) Peculiar piezoelectric properties of two-dimensional materials	●
11:50–12:25	Nestor Perea-Lopez (University Park, USA) Tuning the properties of two dimensional materials by doping and heterostacking	●
12:25–12:45	Kanudha Sharda (Imperial College London, United Kingdom) Electrochemical nature of ionic liquid gated Bi ₂ Te ₃ transistors	●
LUNCH		
CHAIR: Nataša Vujičić		
14:15–14:35	Toby Hallam (Trinity College Dublin, Ireland) Multilayer TMDC synthesis and phase conversion	●
14:35–14:55	Alessandro Surrente (Laboratoire National des Champs Magnétiques Intenses, France) Static and dynamic optical properties of monolayer black phosphorus	●
14:55–15:15	Meinrad Sidler (ETH Zürich, Switzerland) Fermi polaron-polaritons in MoSe ₂	●
15:15–15:35	Vivek Pachauri (University of Applied Sciences Kaiserslautern, Germany) Label-free optical biosensor platform based on 2D inorganic semiconductors	●
15:35–15:55	Maya Isarov (Solid State Institute, Technion, Israel) Magneto-optical properties of individual perovskite nanocrystals	●
15:55–16:05	CLOSING REMARKS	