

Session Program

13-17 Sept 2021

**EUROPEAN CONGRESS AND EXHIBITION ON
ADVANCED MATERIALS AND PROCESSES -
EUROMAT 2021**

A1_Functional Materials

Virtual

Monday 13 September

11:00

A1_Functional Materials: A1_1_Fundamentals and Devices I

Session | Location: Room 1

11:00–11:40 **Diluted Magnetic Semiconductors in Flatland and Beyond (Keynote)**

Speaker

Prof. Dinh Loc Duong

11:40–12:00

Contacts and upstream modes explain electrons-holes asymmetry in graphene quantum Hall regime (Highlight)

Speaker

Mr Nicolas Moreau

12:00–12:20

Local Mapping of Thermoelectric Properties of 2D Structures via Scanning Thermal Gate Microscopy

Speaker

Pascal Gehring

12:20

14:00

A1_Functional Materials: A1_2_Fundamentals and Devices II

Session | Location: Room 1

14:00–14:20

Long-Range Propagation and Interference of d-Wave Superconducting Pairs in Graphene

Speaker

David Perconte

14:20–14:40

DNA translocation in ultrathin 2D nanoslit

Speaker

Dr Wayne Yang

14:40–15:00

Quantum transport in graphene-based single-molecule transistors

Speaker

Dr Jan Mol

15:00–15:20

Graphene nanogaps for the directed assembly of single nanoparticle devices

Speaker

John Cully

15:20–15:40

Electronic measurements of functionalized single-layer graphene by magnetic nanoparticles

Speaker

Mrs Nadzeya Kryvutsa

15:40

16:00

A1_Functional Materials: A1_3_Fundamentals and Devices III**Session** | **Location:** Room 1

16:00–16:20

Spin valves with exfoliated 2D materials: MoS2 (Highlight)**Speaker**

Marta Galbiati

16:20–16:40

Quantum Engineering of Spin-Filtering in WS2-based Magnetic Tunnel Junctions**Speaker**

Mr Victor Zatko

16:40–17:00

Spintronic properties of cluster decorated graphene**Speaker**

Mr Wout Keijers

17:00–17:20

Current manipulation via spin-state switching in magnetic porphyrin connected to graphene electrodes**Speaker**

Dr Sumanta Bhandary

17:20

Tuesday 14 September

09:50

A1_Functional Materials: A1_4_Seeing at the Nanoscale: Spectroscopy and microscopy

Session | Location: Room 1

09:50-10:10

Atomically thin nonlinear optical modulators (Highlight)

Speaker

Prof. Giancarlo Soavi

10:10-10:30

Structural characterization of metastable 2D crystals in graphene encapsulation

Speaker

Dr Kimmo Mustonen

10:30-10:50

Dynamics of 2D Noble Gas Crystals Encapsulated in Few-Layer Graphene

Speaker

Mr Manuel Längle

10:50-11:10

Looking at the interface: A ToF-SIMS study

Speaker

Mr Vlad Veigang

11:10-11:30

Resolving Few-Layer Antimonene/Graphene Heterostructures

Speaker

Mr Tushar Gupta

11:30

11:50

A1_Functional Materials: A1_5_Growth and Applications I

Session | Location: Room 1

11:50-12:10

From crafting to visualization: low-dimensional TMD nanostructures under the electron microscope lamppost (Highlight)

Speaker

Sonia Conesa-Boj

12:10-12:30

Type-I, II and III topological Dirac semimetals in group IV 2D transition metal ditelluride family

Speaker

Mr Sotirios Fragkos

12:30-12:50

Synthesis of monolayer n-doped WSe₂ from solid state inorganic precursors

Speaker

Mr Mauro Och

12:50-13:10

Catalyst Engineering for Scalable 2D Film Control: Integrated Pathways for Single-Crystal Growth.**Speaker**

Mr Oliver Burton

13:10-13:30

Ultrathin epitaxial Bi film growth on HfTe₂/InAs(111) template**Speaker**

Sotirios Fragkos

13:30

15:20

A1_Functional Materials: A1_6_Growth and Applications II**Session** | **Location:** Room 1

15:20-15:40

Scalable Fabrication of Molybdenum Disulfide Nanoribbons, their Manipulation, Assembly and Applications**Speaker**

Yun Huang

15:40-16:00

Large-Area Graphene Transfer through Synthesis of an Interfacial Release Layer Between Epitaxial Cu(Ni)(111) and Al₂O₃(0001) template**Speaker**

Hung-Chieh Tsai

16:00-16:20

A theoretical DFT study of membranes for gas separation based on one and two layers of nano-porous graphene**Speaker**

Nektarios N. Lathiotakis

16:20-16:40

Effects of substrate and surface on the morphology of MoS₂ monolayers**Speaker**

Dr Guido Giammaria

16:40

17:20

A1_Functional Materials: A1_7_Growth and Applications III**Session** | **Location:** Room 1

17:20-17:40

The Coalescence Behavior of Two-Dimensional Materials Revealed by Multi-scale In Situ Imaging during Chemical Vapor Deposition Growth**Speaker**

Marc Willinger

17:40-18:00

Production of few-layer graphene oxide via a novel electrochemical ex-foliation process**Speaker**

Markus Ostermann

18:00-18:20

T-shaped Molecules based on Curcuminoids for Electronic Transport and Sensor Purposes

Speaker

Prof. Nuria Aliaga-Alcalde

18:40