

EWE G/2D

EUROPEAN WORKSHOP ON EPITAXIAL GRAPHENE AND 2D MATERIALS

6th European Workshop on Epitaxial Graphene and 2D Materials

14th - 18th May 2024
Hotel NH
Trieste, Italy

Programme



Elettra Sincrotrone Trieste



Istituto dei
Sistemi Complessi

International Scientific Committee

Matthias Batzill, University of South Florida, Tampa, USA
Carsten Busse, Universität Siegen, Germany
Johann Coraux, CNRS-Institut Néel & Université Grenoble Alpes, Grenoble, France
Yuriy Dedkov, Shanghai University, China
Thomas Greber, Universität Zürich, Switzerland
Oliver Gröning, Empa, Dübendorf, Switzerland
Liv Hornekær, Aarhus University, Denmark
Rosanna Larciprete, CNR - Istituto dei Sistemi Complessi, Roma, Italy
Silvano Lizzit, Elettra Sincrotrone Trieste S.C.p.A., Trieste, Italy
José Ángel Martín-Gago, CSIC - Instituto de Ciencia de Materiales, Madrid, Spain
Thomas Michely, University of Cologne, Germany

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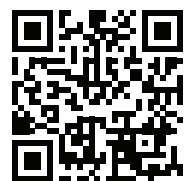


Elettra Sincrotrone Trieste



Local Organising Committee

Annamaria Accetulli, Elettra Sincrotrone Trieste
Rosanna Larciprete, CNR - Istituto dei Sistemi Complessi
Silvano Lizzit, Elettra Sincrotrone Trieste
Luca Petaccia, Elettra Sincrotrone Trieste



<https://indico.elettra.eu/e/EWEG2D24>

Synaptic Schedule/Programme

TUESDAY 14th

ARRIVAL

14:30-15:30 **REGISTRATION**

15:30-16:00 **OPENING**

16:00-16:45 Hong-Jun Gao

16:45-17:05 A.L. Vázquez de Parga

17:05-17:25 Sergio Vlaic

17:25-17:45 Polina Sheverdyeva

19:00-20:30 **DINNER**

THURSDAY 16th

7:30-09:00 **BREAKFAST**

09:00-09:30 Adina Luican-Mayer

09:30-10:00 Shuyun Zhou

10:00-10:20 Matthias Batzill

10:20-10:40 Håkon I. Røst

10:40-11:00 Lihong Bao

11:00-11:15 **COFFEE**

11:15-11:45 Thomas Greber

11:45-12:05 Marko Kriegel

12:05-12:25 Alessandro Sala

12:25-12:45 Teresa Zio

12:45-14:15 **LUNCH**

14:15-19:00 **EXCURSION**

19:00-20:30 **DINNER**

20:30-22:00 **POSTER SESSION**

WEDNESDAY 15th

7:30-09:00 **BREAKFAST**

09:00-09:30 Miguel M. Ugeda

09:30-10:00 Wouter Jolie

10:00-10:20 Johanna P. Carbone

10:20-10:40 Ram Prakash Pandeya

10:40-11:00 Martina Corso

11:00-11:15 **COFFEE**

11:15-11:45 Vidya Madhavan

11:45-12:05 Jeison Fischer

12:05-12:25 Wenjuan Zhao

12:25-12:45 Ilya Klimovskikh

12:45-14:15 **LUNCH**

14:15-14:45 Andrey Turchanin

14:45-15:05 Alexei Preobrajenski

15:05-15:25 Luca Persichetti

15:25-15:45 Dmitry Marchenko

15:45-16:05 **COFFEE**

16:05-16:35 Arkady V. Krasheninnikov

16:35-16:55 Borna Pielić

16:55-17:15 Affan Safeer

17:15-17:35 Akhil Rajan

19:00-20:30 **DINNER**

20:30-22:00 **POSTER SESSION**

FRIDAY 17th

7:30-09:00 **BREAKFAST**

09:00-09:45 Phil King

09:45-10:05 Maxim Krivenkov

10:05-10:25 Sherif Kamal

10:25-10:45 Pablo Vezzoni

10:45-11:05 **COFFEE**

11:05-11:35 Cristina Africh

11:35-11:55 Craig Polley

11:55-12:15 Geng Li

12:15-12:35 Matteo Amati

12:35-14:05 **LUNCH**

14:05-14:35 Jani Kotakoski

14:35-14:55 Harriet Åhlgren

14:55-15:15 Stefan Förster

15:15-15:35 Ana Senkić

15:35-15:50 Saumya Mukherjee

15:50-16:10 **COFFEE**

16:10-16:40 Iulia Cojocariu

16:40-17:00 Jan Čechal

17:00-17:20 Daniel Arribas

17:20-17:40 S. Jimenez Fernandez

20:00-23:00 **CONFERENCE DINNER**

Detailed Day-by-day Schedule/Programme

ARRIVAL

14:30-15:30 **REGISTRATION**

15:30-16:00 **OPENING**

16:00-16:45 **Hong-Jun Gao**: "Ordered and tunable Majorana-zero-mode lattice in iron-based superconductors"

16:45-17:05 **A.L. Vázquez de Parga**: "Probing the phase transition to a coherent 2D Kondo lattice"

17:05-17:25 **Sergio Vlaic**: "Spin-orbit induced splitting in two-dimensional Dirac Cones in single and double antimony layers on Au(111)"

17:25-17:45 **Polina Sheverdyaeva**: "Giant tunable out-of-plane spin polarization in a two-dimensional bilayer of topological antimonene"

19:00-20:30 **DINNER**

7:30-09:00 **BREAKFAST**

09:00-09:30 **Miguel M. Ugeda**: "Collective electronic states in a two-dimensional heavy-fermion system"

09:30-10:00 **Wouter Jolie**: "Confining correlated states in single-layer MoS₂"

10:00-10:20 **Johanna P. Carbone**: "Magnetocrystalline Anisotropy of Heavy Rare-Earth Atoms on Graphene: From DFT to Crystal Field Theory"

10:20-10:40 **Ram Prakash Pandeya**: "Electronic structure of organic thin film morié superstructure on a topologically protected surface: a high-resolution angle-resolved photoemission spectroscopy study"

10:40-11:00 **Martina Corso**: "Tunable ferromagnetic order in 2D layers of transition metals dichlorides"

11:00-11:15 **COFFEE**

11:15-11:45 **Vidya Madhavan**: "Evidence for a broken time reversal symmetry Charge Density Wave state in RbV₃Sb₅"

11:45-12:05 **Jeison Fischer**: "Unconventional charge-density-wave gap in monolayer NbS₂"

12:05-12:25 **Wenjuan Zhao**: "Disentangling the spin-resolved valley structure in monolayer WSe₂"

12:25-12:45 **Ilya Klimovskikh**: "Interfacing Quantum Spin Hall and Quantum Anomalous Hall insulators: Bi bilayer on MnBi₂Te₄-family"

12:45-14:15 **LUNCH**

14:15-14:45 **Andrey Turchanin**: "CVD growth of transition metal dichalcogenides monolayers and their heterostructures: Basic properties and device applications"

14:45-15:05 **Alexei Preobrajenski**: "Under the golden skin: nano-structuring of ultrathin Au films by buried boron"

15:05-15:25 **Luca Persichetti**: "Electronic and interface properties of graphene on Ge(110)"

15:25-15:45 **Dmitry Marchenko**: "Revisiting the realization of artificial graphene by fullerenes on gold and copper surfaces"

15:45-16:05 **COFFEE**

16:05-16:35 **Arkady V. Krasheninnikov**: "Atomic structure of the interfaces in lateral and vertical heterostructures of 2D materials"

16:35-16:55 **Borna Pielić**: "Tailoring the intrinsic interactions in MoS₂ by self-intercalation"

16:55-17:15 **Affan Safeer**: "Epitaxial growth of chromium sulfide: a new 2D non-layered magnetic material"

17:15-17:35 **Akhil Rajan**: "Surfactant-mediated MBE growth of large-area monolayers and van der Waals hetero-structures of transition-metal chalcogenides"

19:00-20:30 **DINNER**20:30-22:00 **POSTER SESSION**

7:30-09:00 **BREAKFAST**

09:00-09:30 **Adina Luican-Mayer:** “Quantum Functionality in 2D materials: From Moiré Structures to Quantum Confined Devices”

09:30-10:00 **Shuyun Zhou:** “Engineering flat bands in twisted bilayer graphene”

10:00-10:20 **Matthias Batzill:** “Self- and hetero- transition metal intercalation in between bilayer VSe₂”

10:20-10:40 **Håkon I. Røst:** “Disentangling the Electron Scattering Mechanisms of Hexagonal Boron Nitride”

10:40-11:00 **Lihong Bao:** “High-performance electronic devices enabled by atomically sharp interface of van der Waals heterostructures”

11:00-11:15 **COFFEE**

11:15-11:45 **Thomas Greber:** “Single layer boron Nitride”

11:45-12:05 **Marko Kriegel:** “Competing Processes as a Quality Limitation: New Insights into Microscopic Growth Mechanisms of Single-Layer Hexagonal Boron Nitride on Ir(111)”

12:05-12:25 **Alessandro Sala:** “Synthesis and characterization of crystalline and vitreous phases of two-dimensional boron”

12:25-12:45 **Teresa Zio:** “Exploring the crystalline-vitreous transition in a novel 2D boronoxide covalent framework: synthesis, characterization and reactivity”

12:45-14:15 **LUNCH**

14:15-19:00 **EXCURSION / TOUR**

19:00-20:30 **DINNER**

20:30-22:00 **POSTER SESSION**



7:30-09:00 **BREAKFAST**

09:00-09:45 **Phil King**: "Probing and controlling collective states of monolayer TMDs and their van der Waals heterostructures"

09:45-10:05 **Maxim Krivenkov**: "One-dimensional electronic structure of phosphorene chains"

10:05-10:25 **Sherif Kamal**: "Nanograting formation and electron scattering in epitaxial borophene on iridium: Experimental and theoretical insights"

10:25-10:45 **Pablo Vezzoni**: "A holistic structural understanding of epitaxially-grown Bi/Au(111) Moiré superstructures"

10:45-11:05 **COFFEE**

11:05-11:35 **Cristina Africh**: "Single cobalt and nickel atoms incorporated in graphene: synthesis, structure, stability and potential applications"

11:35-11:55 **Craig Polley**: "Large area growth of monolayer honeycomb SiC atop transition metal carbides"

11:55-12:15 **Geng Li**: "Construction of atomic monolayer Si_9C_{15} on metal surfaces"

12:15-12:35 **Matteo Amati**: "1D- and 2D-materials chemical characterization at the submicron scale by Scanning Photoelectron Imaging and Spectromicroscopy"

12:35-14:05 **LUNCH**

14:05-14:35 **Jani Kotakoski**: "2D materials as host for single-atom impurities, metal nanostructures and van der Waals materials"

14:35-14:55 **Harriet Åhlgren**: "Metal atoms on functional nanoplateforms - Investigating 2D materials and their functionalisation via ion implantation"

14:55-15:15 **Stefan Förster**: "A two-dimensional aperiodic network hosting Eu"

15:15-15:35 **Ana Senkić**: "Microscopic investigation of intrinsic defects in CVD grown MoS_2 monolayers"

15:35-15:50 **Saumya Mukherjee**: "Next Generation Electron Momentum Spectroscopy and Microscopy"

15:50-16:10 **COFFEE**

16:10-16:40 **Iulia Cojocariu**: " π -Conjugated Carbon-Based 2D Materials"

16:40-17:00 **Jan Čechal**: "How the support defines properties of 2D metal-organic frameworks: Fe-TCNQ on graphene vs. Au(111)"

17:00-17:20 **Daniel Arribas**: "Enhanced Hydrogen Adsorption Performance on Graphene Induced by Moiré Patterns"

17:20-17:40 **Sergio Jimenez Fernandez**: "Hydrogen-induced etching of β -SnSe"

20:00-23:00 **CONFERENCE DINNER**