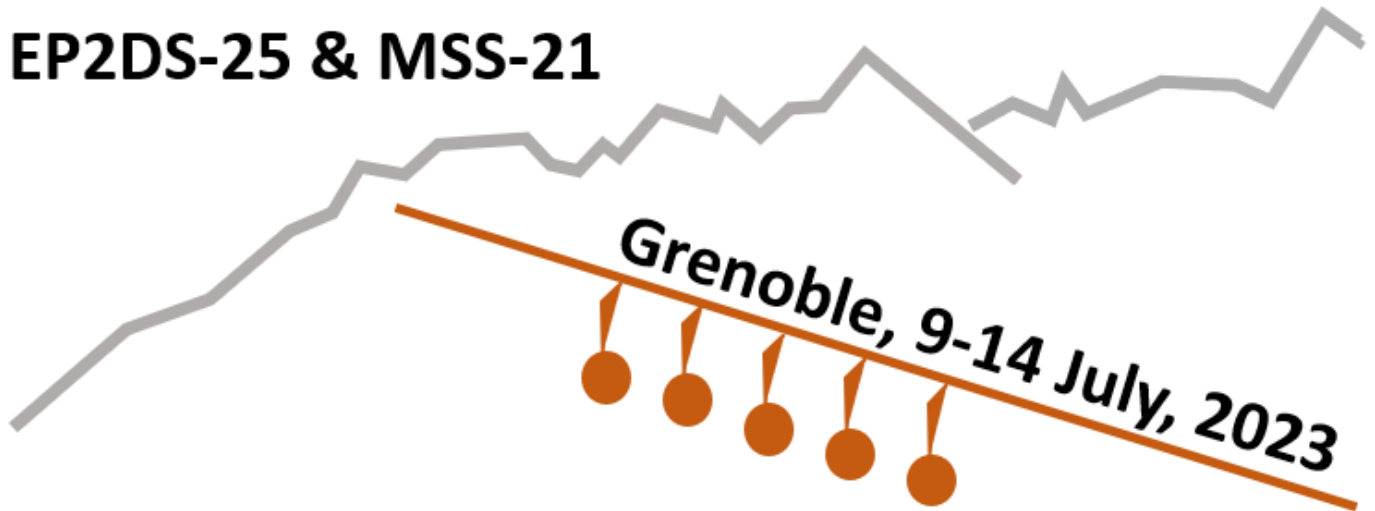


EP2DS-25 & MSS-21



Conference programme

25th International Conference on the Electronic Properties of Two-Dimensional Systems

&

21st International Conference on Modulated Semiconductor Structures

<https://ep2ds25mss21.sciencesconf.org/>



EP2DS-25 & MSS-21 conference

We welcome you to the 25th International Conference on the Electronic Properties of Two-Dimensional Systems (EP2DS-25) and the 21st international Conference on Modulated Semiconductor Structures (MSS-21). For the most of their existence, the two conferences have been organized jointly, with shared plenary and poster sessions, and we continue this tradition. Below you will find a complete programme of this joint conference. It comprises 28 oral sessions (plenary, special and parallel) as well as two poster sessions. We are happy to see that the conference attracted researchers working at the forefront of physics of two-dimensional systems, and therefore, we may provide you with a rich and representative programme comprising advances in the fundamental understanding, as well as in synthesis, processing, characterization, and applications, of a broad range of low dimensional electron systems. These include semiconductor quantum wells/wires/dots, two dimensional materials (graphene, transition metal dichalcogenides, magnetic and ferroelectric systems), topological insulators, and hybrid systems. We hope that you will enjoy the conference and we wish you a pleasant stay in Grenoble!

We warmly thank the international advisory committee, the program committees and the local organizing committee for their help. We are also grateful for the support received from the CNRS, IUPAP, CEA and from our industrial partners: Attocube, SPECSGROUP and TELEDYNE Princeton Instruments.

Sincerely,

Clément Faugeras & Milan Orlita (chairs of the joint EP2DS-25 & MSS-21 conference)



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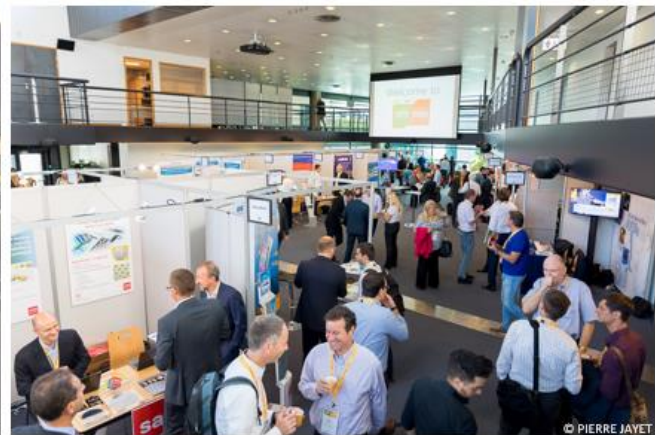
Benjamin Piot, Grenoble
Marek Potemski, Grenoble
Tristan Meunier, Grenoble

Conference venue

The conference will be held in the World Trade Center in the Grenoble's downtown.

Address: 5-7 Pl. Robert Schuman
38000 Grenoble
France

The venue is just a few steps from the main train & bus stations in Grenoble.

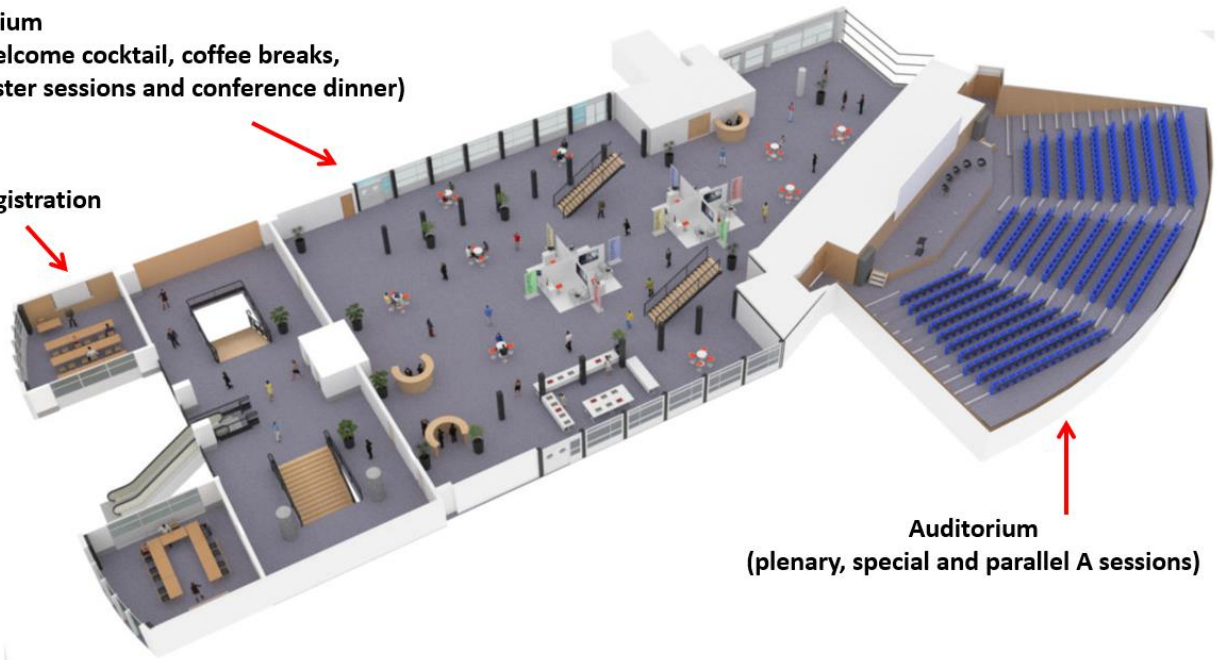


Plan of the conference venue

WTC 1st floor

Atrium
(welcome cocktail, coffee breaks,
poster sessions and conference dinner)

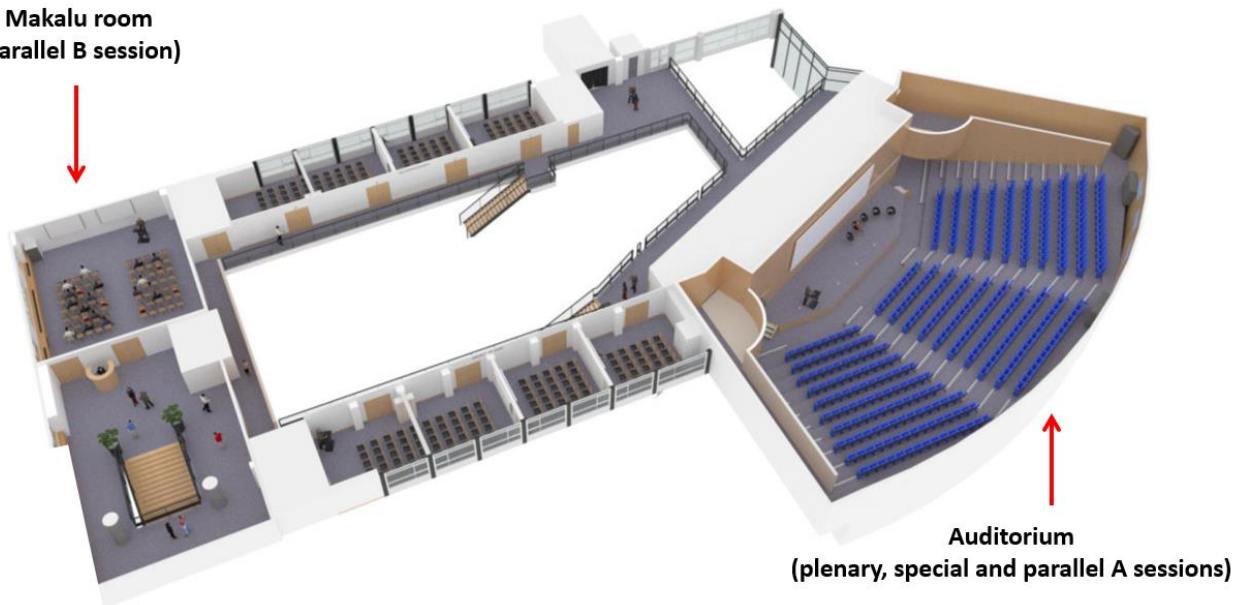
Registration



Auditorium
(plenary, special and parallel A sessions)

WTC 2nd floor

Makalu room
(Parallel B session)



Auditorium
(plenary, special and parallel A sessions)

Nearby dining places

[GOURMET BAR NOVOTEL](#)

7 Place Robert Schuman 38000 GRENOBLE
Modern cooking, inside WTC

[TRIB' CAFE](#)

10 Place Robert Schuman 38000 GRENOBLE
Brasserie with terrace 100 m – **1 min by foot**

[QUAI 29](#)

29 rue Pierre Sépard 38000 GRENOBLE
Specialized in meat and fish - terrace 200 m – **3 min by foot**

[L'EPICERIE COMPTOIR](#)

4 Place Robert Schuman 38000 GRENOBLE
Wine and French cooking 100 m – **1 min by foot**

[BISTROT D'EMILE](#)

1 rue d'Alembert 38000 GRENOBLE
With terrace 200 m – **3 min by foot**

[LA CANTINE DES FILLES](#)

2 rue de Vercors 38000 GRENOBLE
Modern cooking - terrace 260 m – **3 min by foot**

[L'AIGUILLAGE](#)

14 rue Abbé Grégoire 38000 GRENOBLE
Natural cooking 350 m – **4 min by foot**

[LE PETIT BOUCHON GASCON](#)

2 rue de Vercors 38000 GRENOBLE
Brasserie with terrace 260 m – **3 min by foot**

[LA CASA DE PITOU](#)

9 rue du Vercors 38000 GRENOBLE
Fast food 300 m – **4 min by foot**

[MA PETITE DAME](#)

9 Rue Pierre Sépard 38000 GRENOBLE
Fast food 350 m – **4 min by foot**

Transport in Grenoble

The public transport in Grenoble is provided by TAG company operating 5 tramway lines and a number of bus connections. More details about time tables, network served and prices can be found [here](#).



Tourism in Grenoble

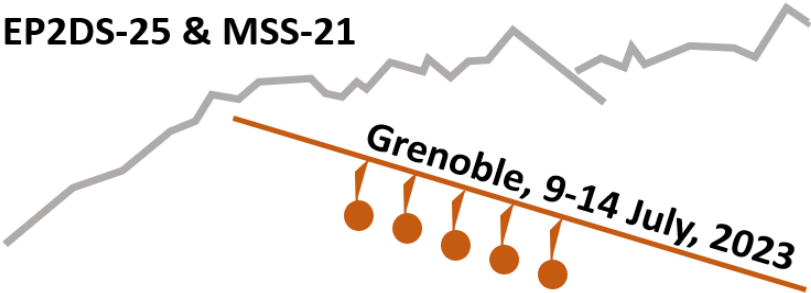
Detailed information about tourism around and in Grenoble can be found at the local [Tourist office](#).



EP2DS-25 & MSS-21: Conference schedule

| | Sunday 9/07/23 | Monday 10/07/23 | Tuesday 11/07/23 | Wednesday 12/07/23 | Thursday 13/07/23 | Friday 14/07/23 |
|-------|--------------------------------------|--|--|--|---|--|
| 08:00 | | Registration | | | | |
| | | Opening 8:50 | | APS presentation 8:45 | | |
| 09:00 | | Plenary 1: J. Bloch A. Imamoğlu | Session 4A: 2D materials - transport II Session 4B: Qubits II | Plenary 2: A. H. MacDonald F. Wang | Session 8A: Qubits and QHE Session 8B: 2D materials - transport IV | Session 12A: 2D materials - transport V Session 12B: Hybrid systems & THz |
| 10:00 | | | | | | |
| 11:00 | | Coffee break | Coffee break | Coffee break | Coffee break | Coffee break |
| 12:00 | | Session 1A: 2D materials - transport I Session 1B: Qubits I | Session 5A: FQHE I Session 5B: Topology | Topical session "Magnetic and ferroelectric van der Waals materials" | Session 9A: FQHE and IQHE Session 9B: 2D materials - optics III | Plenary 3: M. Heiblum C. Dean |
| 13:00 | | Lunch break | Lunch break | Lunch break | Lunch break | Closing 12:30 |
| 14:00 | | | | | | |
| 15:00 | | Session 2A: 2D materials - optics I Session 2B: Low-dimensional systems I | Session 6A: FQHE II Session 6B: 2D materials - optics II | Excursions | Session 10A: Electric transport Session 10B: 2D materials - optics IV | |
| 16:00 | | | Coffee break | | Coffee break | |
| 17:00 | | Session 3A: QHE I Session 3B: Spintronics & THz | Session 7A: 2D materials - transport III Session 7B: Low dimensional systems II | | Session 11A: 2D materials - optics V Session 11B: Low dimensional systems III | |
| 18:00 | | | | | | |
| 19:00 | Welcome cocktail (Atrium) | Poster session 1 (Atrium) | Poster session 2 (Atrium) | | | |
| 20:00 | | | | Conference dinner (Atrium) | Plenary sessions = Auditorium Parallel sessions A = Auditorium Parallel sessions B = Makalu room | |
| 21:00 | | | | | | |

EP2DS-25 & MSS-21



Sunday
09/07/2023

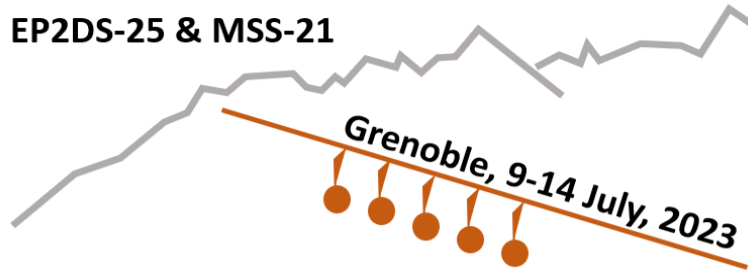
17:00-
18:00

Registration

18:00-
20:00

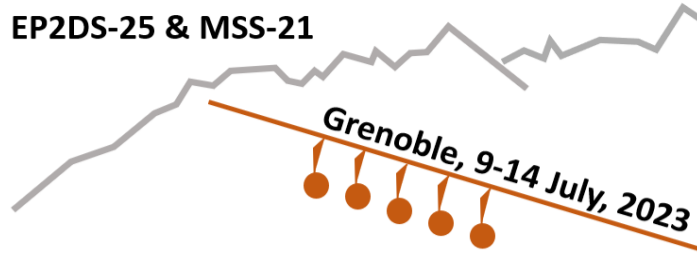
Welcome cocktail (Atrium)

EP2DS-25 & MSS-21



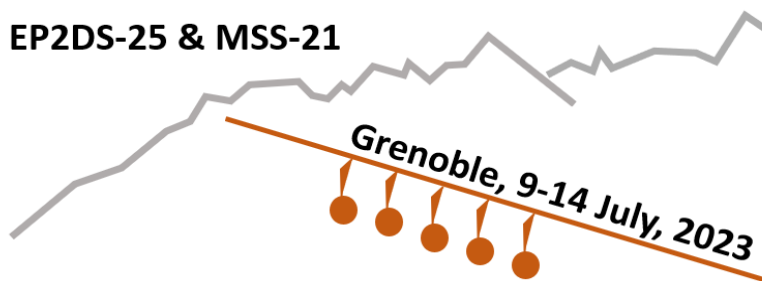
Monday
10/07/2023

| Plenary session 1 - Auditorium | | | |
|---|--|--|---|
| 08:50 | Chair: Allan H. MacDonald | Clément Faugeras <i>Université Grenoble Alpes, LNCMI, CNRS, Grenoble, France</i> | Conference opening |
| 09:00 | | Jacqueline Bloch <i>CNRS - Université Paris Saclay, France</i> | Emulating condensed matter physics with photons in lattices |
| 09:45 | | Atac Imamoglu <i>ETH Zurich, Switzerland</i> | Optical investigation of strong electronic correlations: kinetic magnetism in semiconductor moire materials |
| 10:30 | Coffee break | | |
| Parallel session 1A: 2D materials - transport I | | Parallel session 1B: Qubits I | |
| 11:00 | Location: Auditorium Chair: Rolf Haug | Dmitri K. Efetov Invited <i>Ludwig Maximilian University of Munich, Germany</i> Plethora of Many-Body Ground States in Magic Angle Twisted Bilayer Graphene | Andrea Hofmann Invited <i>University of Basel, Switzerland</i> Hybrid super-/semiconducting devices in planar Ge |
| 11:30 | | Alexandra Mestre Tora Contributed <i>ETH Zürich, Switzerland</i> Gate-defined ring in magic-angle twisted bilayer graphene | Michihisa Yamamoto Contributed <i>RIKEN, Wako, Saitama, Japan</i> Quantum circuits for electron flying qubits |
| 11:45 | | Adam Shaffique Contributed <i>National University of Singapore, Singapore</i> Apparent strange metal behavior in small angle twisted bilayer graphene | Jonathan Fletcher Contributed <i>National Physical Laboratory, Teddington, UK</i> Time-resolved Coulomb collision of single electrons |
| 12:00 | | Uli Zeitler Contributed <i>Radboud University, Nijmegen, The Netherlands</i> Phonon-mediated room-temperature quantum Hall transport in graphene | Christopher Bauerle Invited <i>Université Grenoble Alpes, CNRS, Institut Néel, Grenoble, France</i> Electron collision experiments and flying qubits with single electrons |
| 12:15 | | Tani Tenta Contributed <i>Osaka University, Osaka, Japan</i> Fano-resonant perpendicular electronic transport and interface-localized state in twisted graphite | |
| 12:30 | Lunch break | | |
| Parallel session 2A: 2D materials - optics I | | Parallel session 2B: Low dimensional systems I | |
| 14:30 | Location: Auditorium Chair: Atac Imamoglu | Ursula Wurstbauer Invited <i>Institute of Physics, Münster University, Münster, Germany</i> Collective excitations in two-dimensional quantum materials | Jérôme Faist Invited <i>ETH Zurich, Switzerland</i> Breakdown of the topological protection in the integer Quantum Hall effect through vacuum field in metamaterial cavities |
| 15:00 | | Piotr Kapuscinski Contributed <i>Université Grenoble Alpes, LNCMI, CNRS, Grenoble, France</i> Electronic Raman scattering in transition metal dichalcogenide monolayers | Tobias Voelkl Contributed <i>Weizmann Institute of Science, Rehovot, Israel</i> Direct observation of vortices in an electron fluid |
| 15:15 | | Maciej Molas Contributed <i>University of Warsaw, Warsaw, Poland</i> Hot luminescence or Raman scattering in monolayers of MoSi ₂ N ₄ | Baptiste Lefaucher Contributed <i>Univ. Grenoble Alpes, CEA, SiNaPS laboratory, Grenoble, France</i> Purcell-enhanced zero-phonon emission for silicon color centers in SOI cavities |
| 15:30 | | Alexey Chernikov Invited <i>Dresden University of Technology, Germany</i> Mobile exciton complexes in inorganic and hybrid 2D semiconductors | Ngoc Han Tu Contributed <i>RIKEN, Saitama, Japan</i> Control of the long-range spin screening and Kondo tunnelling in a quantum box |
| 15:45 | | | Francis Granger Contributed <i>Univ. Grenoble-Alpes, CEA, Grenoble-INP, Grenoble France</i> Room-temperature single-photon source in the blue-green range using CdSe quantum-dot |
| 16:00 | Coffee break | | |
| Parallel session 3A: Quantum Hall effect I | | Parallel session 3B: Spintronics & THz | |
| 16:30 | Location: Auditorium Chair: Dieter Weiss | Yuma Okazaki Invited <i>AIST & NMIJ, Tsukuba, Japan</i> Prospects and progress of the quantum anomalous Hall resistance standard | Shinobu Ohya Invited <i>The University of Tokyo, Japan</i> Giant spin-charge conversion using two-dimensional electron gas systems of single-crystalline oxide Rashba heterostructures |
| 17:00 | | Jean Heremans Contributed <i>Virginia Tech, Blacksburg, USA</i> Electron-electron interactions and collective dynamics in 2D electron systems | Katsumasa Yoshioka Contributed <i>NTT Basic Research Laboratories, NTT Corporation, Atsugi, Japan</i> Ultrafast On-chip Readout of Propagating THz Graphene Plasmon Wavepackets |
| 17:15 | | Hiroshi Kamata Contributed <i>NTT Basic Research Laboratories, Atsugi, Kanagawa, Japan</i> Time-resolved helical edge transport in the quantum Hall regime of electron-hole bilayer systems | Pavlo Sai Contributed <i>CENTERA Laboratories, IHPP PAS, Warsaw, Poland</i> Electrical Tuning of 2D Plasmon Resonances in AlGaIn/GaN Plasmonic Crystals |
| 17:30 | | Yang Liu Contributed <i>Peking University, Haidian, Beijing, China</i> Dynamic Response of Wigner Crystals | Lukáš Nádvorník Invited <i>Charles University, Prague, The Czech Republic</i> Terahertz spin currents in magnetically ordered thin films |
| 17:45 | | Lev V. Ginzburg Contributed <i>Solid State Physics Laboratory, ETH Zürich, Switzerland</i> Long distance electron-electron scattering detected with point contacts | |
| 18:00-20:00 | Poster session 1 (Atrium) | | |



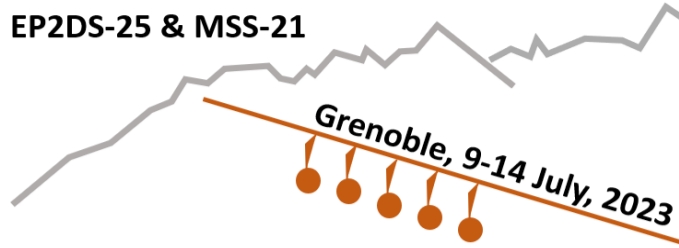
| Parallel session 4A: 2D materials - transport II | | Parallel session 4B: Qubits II | |
|--|---|--|----------|
| 09:00 | Emanuel Tutuc Invited <i>University of Texas at Austin, USA</i> Interlayer coherence in twist-controlled double layers of 2D materials | Kenta Takeda Invited <i>Center for Emergent Matter Science (CEMS), RIKEN, Wako, Japan</i> High-fidelity quantum operations and quantum error correction in silicon | Abstract |
| 09:30 | Adbhut Gupta Contributed <i>Princeton University, Princeton, USA</i> Next generation two-dimensional carrier systems in GaAs quantum wells | Boris Brun Contributed <i>CEA, Grenoble INP, IRIG-PHELIQS, Grenoble, France</i> A single hole spin with enhanced coherence in natural silicon | Abstract |
| | | | |
| 09:45 | Lyudmila Turyanska Contributed <i>University of Nottingham, Nottingham, United Kingdom</i> Charge Transfer In Perovskite/Graphene Field Effect Transistors | Oriol Pietx-Casas Contributed <i>Delft University of Technology, Delft, Netherlands</i> Hotter is easier: overcoming heating effects and temperature scaling of 28Si/SiGe spin qubits | Abstract |
| | | | |
| 10:00 | Vincent Renard Contributed <i>Univ. Grenoble Alpes, CEA, IRIG, PHELIQS, Grenoble, France</i> Experimental evidence of a Berry-Kekulé vortex in graphene | Mohamed Seddik Ouacel Contributed <i>Université Grenoble Alpes, CNRS, Grenoble INP, Institut Néel, Grenoble, France</i> Flying electron qubit using ultrashort charge pulses | Abstract |
| | | | |
| 10:15 | Pawel Potasz Contributed <i>Nicolaus Copernicus University, Torun, Poland</i> Magnetic properties of partially filled energy bands of moire superlattice | Leo Pugliese Contributed <i>SPEC, CEA, CNRS, Université Paris-Saclay, CEA Saclay, France</i> Emission and coherent control of Levitons in graphene | Abstract |
| | | | |
| 10:30 | Coffee break | | |
| Parallel session 5A: Fractional Quantum Hall effect I | | Parallel session 5B: Topology | |
| 11:00 | Masayuki Hashisaka Invited <i>NTT Basic Research Laboratories, NTT Corporation, Atsugi, Japan</i> Coherent-Incoherent Crossover of Charge and Neutral Mode Transport at a Fractional-Integer Quantum Hall Junction | Carmine Autieri Invited <i>Institute of Physics, Polish Academy of Sciences, Warsaw, Poland</i> New topological phases in HgTe-based systems | Abstract |
| 11:30 | Chengyu Wang Contributed <i>Princeton University, Princeton, USA</i> Even-denominator fractional quantum Hall states in ultra-high-mobility GaAs twodimensional hole systems | Stefan Hartl Contributed <i>Universität Regensburg, Regensburg, Germany</i> Quantum Hall effect and current distribution in a 3D-topological insulator | Abstract |
| | | | |
| 11:45 | June-Young Lee Contributed <i>KAIST, Daejeon, Korea</i> Non-Abelian Anyon Collider | Guangtai Lu Contributed <i>University of Tokyo, Tokyo, Japan</i> Lasing oscillation in twisted quadrupole topological photonic crystals | Abstract |
| | | | |
| 12:00 | Yigal Meir Contributed <i>Ben Gurion University, Beer Sheva, Israel</i> Measuring Entropy of Exotic Particles | Erwann Bocquillon Contributed <i>ENS, CNRS, Sorbonne Université, Paris, France</i> Velocity of edge plasmons in HgTe-based 2D topological insulators | Abstract |
| | | | |
| 12:15 | Jinhong Park Contributed <i>Karlsruhe Institute of Technology, Karlsruhe, Germany</i> Noise on the non-Abelian $\nu=5/2$ quantum Hall edge: Towards the identification of its topological order | Hui Li Contributed <i>Hong Kong University of Science and Technology, China</i> Third-order nonlinear transport in antiferromagnetic topological insulator MnBi ₂ Te ₄ flakes | Abstract |
| | | | |
| 12:30 | Lunch break | | |
| Parallel session 6A: Fractional Quantum Hall effect II | | Parallel session 6B: 2D materials - optics II | |
| 14:30 | François Parmentier Invited <i>Université Paris-Saclay, CEA, CNRS, SPEC, France</i> Heat equilibration of integer and fractional quantum Hall edge modes in graphene | Wojciech Pacuski Invited <i>University of Warsaw, Poland</i> Excitons in transition metal dichalcogenides grown by MBE on hBN | Abstract |
| 15:00 | Pierre Glidic Contributed <i>Université Paris-Saclay, CNRS, C2N, Palaiseau, France</i> Exploring the nature of integer and fractional quantum Hall quasiparticles in a 'collider' geometry | Jean-Michel Gérard Contributed <i>CEA, INP, IRIG-PHELIQS, NPSC laboratory, Grenoble, France</i> A nanowire optical cavity for broadband enhancement of spontaneous emission | Abstract |
| | | | |
| 15:15 | Toshimasa Fujisawa Contributed <i>Tokyo Institute of Technology, Tokyo, Japan</i> Non-thermal Tomonaga-Luttinger liquid emerged from hot electrons in quantum Hall edge channels | Aleksander Rodek Contributed <i>University of Warsaw, Warsaw, Poland</i> Controlled coherent-coupling and dynamics of exciton complexes in a MoSe ₂ monolayer | Abstract |
| | | | |
| 15:30 | Heung-Sun Sim Invited <i>KAIST, Daejeon, South Korea</i> Braiding of anyons at quantum point contacts | Elena Blundo Invited <i>Sapienza University of Rome, Rome, Italy</i> Strain tuning of the optoelectronic properties of two-dimensional crystals | Abstract |
| | | | |
| 16:00 | Coffee break | | |
| Parallel session 7A: 2D materials - transport III | | Parallel session 7B: Low dimensional systems II | |
| 16:30 | Annika Kurzmam Invited <i>RWTH Aachen, Germany</i> Kondo effect in bilayer graphene quantum dots | David Northeast Invited <i>National Research Council Canada, Ottawa, Canada</i> Hybrid integrated quantum photonic circuits using InAsP quantum dots in InP nanowires on a silicon nitride platform | Abstract |
| 17:00 | Aurélien Schmitt Contributed <i>Laboratoire de Physique de l'ENS, Paris, France</i> Mesoscopic Klein-Schwinger effect in graphene | Hajer Tlili Contributed <i>CEA, INP, IRIG-PHELIQS, NPSC laboratory, Grenoble, France</i> Exploring the high-frequency mechanical resonances of a quantum dot-microwire hybrid system | Abstract |
| | | | |
| 17:15 | Priya Tiwari Contributed <i>Weizmann Institute of Science, Rehovot, Israel</i> Experimental observation of spin-split energy dispersion in high-mobility single-layer graphene/WSe ₂ heterostructures | Kazuyuki Kuroyama Contributed <i>The University of Tokyo, Tokyo, Japan</i> Electrical Detection of Ultrastrong Coupling between Two-Dimensional Electrons and a Single Terahertz Optical Resonator by Using a Quantum Point Contact | Abstract |
| | | | |
| 17:30 | Mark Greenaway Invited <i>Loughborough University, UK</i> Doppler-shifted magnetophonon resonances, Mach supersonics and a critical "Landau" velocity in graphene | Takase Shimizu Contributed <i>NTT Basic Research Laboratories, NTT corporation, Japan</i> Bias-induced decoherence in a Mach-Zehnder interferometer consisting of spin resolved copropagating edge channels | Abstract |
| | | | |
| 17:45 | | Chuyao Tong Contributed <i>ETH Zurich, Switzerland</i> Long-lived valley states in bilayer graphene quantum dots | Abstract |
| | | | |
| 18:00-20:00 | Poster session 2 (Atrium) | | |

EP2DS-25 & MSS-21



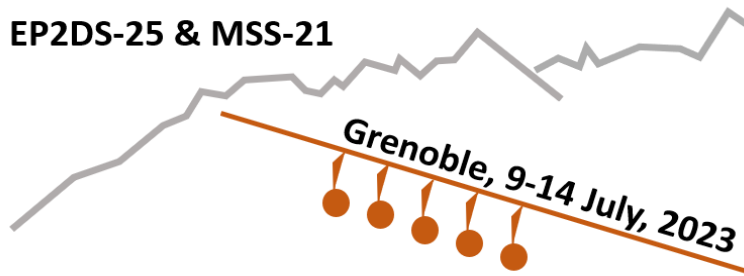
Wednesday
12/07/2023

| Plenary session 2 - Auditorium | | | | |
|--|-----------------------|--|---|----------|
| 08:45 | Chair: Luis Vñña | Samindranath Mitra <i>Editor, Physical Review Letters, APS</i> | 2D physics in Physical Review Letters: Remarks from an editor | Abstract |
| 09:00 | | Allan H. MacDonald <i>University of Texas at Austin, USA</i> | Twists in Moiré Materials | Abstract |
| 09:45 | | Feng Wang <i>UC Berkeley, USA</i> | Designing Artificial Quantum Materials in Transition Metal Dichalcogenide Moire Heterostructures | Abstract |
| 10:30 | | Coffee break | | |
| Topical session on "Magnetic and ferroelectric van der Waals materials" - Auditorium | | | | |
| 11:00 | Chair: Marek Potemski | Alberto Morpurgo <i>University of Geneva, Switzerland</i> | Probing and controlling 2D magnetic materials with transport in nanodevices | Abstract |
| 11:30 | | Kenji Yasuda <i>Massachusetts Institute of Technology, USA</i> | Designing two-dimensional ferroelectrics via stacking- engineering | Abstract |
| 12:00 | | Geoff Diederich <i>University of Washington, USA</i> | Tunable interactions between excitons and hybridized magnons in a layered semiconductor | Abstract |
| 12:30 | | Lunch break | | |
| 14:30-18:00 | | Excursions | | |
| 19:00-22:00 | | Conference dinner (Atrium) | | |



| | | Parallel session 8A: Qubits and QHE | | Parallel session 8B: 2D materials - transport IV | |
|-------|--|---|-------------|---|-------------|
| 09:00 | Location: Auditorium Chair: Seigo Tarucha | Joshua Folk <i>University of British Columbia, Canada</i> Entropy measurement in coupled quantum systems | Invited | R. Thomas Weitz <i>Georg-August-University Göttingen, Germany</i> Nontrivial quantum phases in natural bilayer graphene at its tunable van-Hove singularity accessed by bandstructure control and screening | Invited |
| 09:30 | | Dijkema Jurgen <i>Delft University of Technology, The Netherlands</i> Two-qubit logic between distant spins in silicon | Contributed | Taro Wakamura <i>NTT Basic Research Laboratories, NTT Corporation, Atsugi, Japan</i> Novel superconducting properties of few-layer Td-MoTe ₂ | Contributed |
| 09:45 | | Noah Samuelson <i>University of California at Santa Barbara, USA</i> Universal chiral Luttinger liquid behavior in a graphene fractional quantum Hall point contact | Contributed | Jonas Daniel Gerber <i>ETH Zürich, Switzerland</i> Spin-orbit coupling in graphene/transition-metal dichalcogenide quantum devices | Contributed |
| 10:00 | | Matteo Acciai <i>Chalmers University of Technology, Sweden</i> Time-domain two-particle interference in the integer and fractional quantum Hall effect | Invited | Tomoki Machida <i>The University of Tokyo, Tokyo, Japan</i> Symmetry engineering in twisted bilayer WTe ₂ | Contributed |
| 10:15 | | | | Nicolas Ubrig <i>University of Geneva, Switzerland</i> Gate-controlled Magnetotransport and Electrostatic Modulation of Magnetism in 2D Magnetic Semiconductor CrPS ₄ | Contributed |
| 10:30 | Coffee break | | | | |
| | | Parallel session 9A: FQHE and IQHE | | Parallel session 9B: 2D materials - optics III | |
| 11:00 | Location: Auditorium Chair: Heung-Sun Sim | Gwendal Fève <i>Laboratoire de Physique de l'Ecole Normale Supérieure, ENS, Université PSL, CNRS, Sorbonne Université, Université Paris Cité, Paris, France</i> Fractional statistics of anyons in mesoscopic colliders | Invited | Barbara Piętko <i>University of Warsaw, Poland</i> Non-trivial band geometry and polariton lasing in electrically tunable birefringent microcavities with 2D and 3D perovskites | Invited |
| 11:30 | | Olivier Maillet <i>Université Paris-Saclay, CEA, CNRS, SPEC, Gif-sur-Yvette, France</i> Quasiparticle Andreev-like scattering in the $\nu=1/3$ fractional quantum Hall regime | Contributed | M. Dolores Martín <i>Universidad Autónoma de Madrid, Madrid, Spain</i> Polariton circuits: turning bends and their impact on polarization | Contributed |
| 11:45 | | Kumar Srivastav Saurabh <i>Indian Institute of Science, Bangalore, India</i> Determination of topological edge quantum numbers of fractional quantum Hall phases by thermal conductance measurements | Contributed | Jacek Kasprzak <i>Univ. Grenoble Alpes, CNRS, Grenoble INP, INéel, Grenoble, France</i> Electronically tunable exciton confinement probed with nonlinear spectroscopy | Contributed |
| 12:00 | | Preden Rouleau <i>CNRS Saclay, France</i> Excitonic nature of magnons in a quantum Hall ferromagnet | Invited | Tommaso Venanzi <i>Italian Institute of Technology (IIT), Rome, Italy</i> Terahertz induced trion-to-exciton conversion in a MoSe ₂ monolayer | Contributed |
| 12:15 | | | | Natasha Kiper <i>ETH Zürich, Zürich, Switzerland</i> Moiré Potential for TMDs Generated by Twisted hBN Interface | Contributed |
| 12:30 | Lunch break | | | | |
| | | Parallel session 10A: Electric transport | | Parallel session 10B: 2D material - optics IV | |
| 14:30 | Location: Auditorium Chair: Benjamin Piot | Le Duc Anh <i>The University of Tokyo, Tokyo, Japan</i> New magnetotransport phenomena in quantum heterostructures containing an Fe-doped ferromagnetic semiconductor | Invited | Mauro Brotons-Gisbert <i>Heriot-Watt University, Edinburgh, UK</i> The interplay of field-tunable strongly correlated states in a multi-orbital moiré system | Invited |
| 15:00 | | Shunsuke Ota <i>Tokyo Institute of Technology, Japan</i> On-demand Single-Electron Source with Acousto-Electric Pulses | Contributed | Florian Dirnberger <i>Technische Universität Dresden, Germany</i> Exciton-polaritons in van der Waals magnetic semiconductor CrSBr | Contributed |
| 15:15 | | Yoshisuke Ban <i>RIKEN, Wako, Saitama, Japan</i> Observation of single-electron transport and spin-blockade up to room temperature in Si tunnel FETs with deep impurity levels | Contributed | Amit Pawbake <i>Université Grenoble Alpes, LNCMI, CNRS, Grenoble, France</i> Magneto-optical sensing of the pressure driven magnetic ground states in bulk CrSBr | Contributed |
| 15:30 | | Keita Ishihara <i>The University of Tokyo, Japan</i> Large nonreciprocal superconductivity in β -Sn nanowires embedded in topological Dirac semimetal α -Sn thin films | Contributed | Cédric Robert <i>Université de Toulouse, INSA-CNRS-UPS, LPCNO, Toulouse, France</i> Spin/Valley Pumping and Long-Distance Spin Transport in Monolayer TMD semiconductors | Invited |
| 15:45 | | Maksim Savchenko <i>Vienna University of Technology, Vienna, Austria</i> Demonstration of high sensitivity of microwave-induced resistance oscillations to circular polarization | Contributed | | |
| 16:00 | Coffee break | | | | |
| | | Parallel session 11A: 2D materials - optics V | | Parallel session 11B: Low dimensional systems III | |
| 16:30 | Location: Auditorium Chair: Cédric Robert | Ermin Malic <i>Philipps-Universität Marburg, Germany</i> Exciton optics, dynamics, and transport in atomically thin materials | Invited | Georgy Astakhov <i>Helmholtz-Zentrum Dresden-Rossendorf, Germany</i> Ion-induced telecom single-photon emitters in silicon | Invited |
| 17:00 | | Chang-Woo Cho <i>LNCMI, CNRS, Grenoble, France</i> Microscopic parameters of the van der Waals CrSBr antiferromagnet from microwave absorption experiments | Contributed | Qian Chenjiang <i>Technische Universität München, Garching, Germany</i> Emitter-Optomechanical Interactions in Ultra High-Q hBN Nanocavities | Contributed |
| 17:15 | | Kacper Oreszczuk <i>University of Warsaw, Poland</i> Enhancement of electron magnetic susceptibility due to many-body interactions in monolayer MoSe ₂ | Contributed | Katarzyna Sadecka <i>University of Ottawa, Ottawa, Canada</i> Electrically Tunable Excitons in Gated Bilayer Graphene Quantum Dots | Contributed |
| 17:30 | | Francesca Carosella <i>Laboratoire de Physique de l'ENS, CNRS, Paris, France</i> Layer - dependent bandstructure and optical properties of 2D PtSe ₂ | Contributed | Carlos Anton-Solanas <i>Universidad Autónoma de Madrid, Spain</i> Single-photon sources based on semiconductor quantum dots and two-dimensional materials | Invited |
| 17:45 | | Aditi R. Moghe <i>Université de Strasbourg, CNRS, IPCMS, Strasbourg</i> Towards a microscopic understanding of photoluminescence quenching in monolayer MoSe ₂ /n-layer graphene heterostructures | Contributed | | |

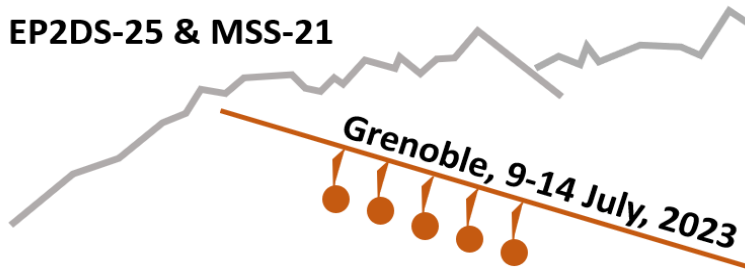
EP2DS-25 & MSS-21



Friday
14/07/2023

| | | Parallel session 12A: 2D materials - transport V | | Parallel session 12B: Hybrid systems and THz | | | | | | | | |
|--------------------------------|--|---|--|--|---|----------|----------|---|----------|-------------|----------|----------|
| 09:00 | Location: Auditorium Chair: Cory Dean | Qianhui Shi <i>UC Los Angeles, USA</i> | Invited | Shohei Kobayashi <i>RIKEN & Tokyo University of Science, Japan</i> | Contributed | Abstract | | | | | | |
| 09:00 | | | Quantum phenomena in the Landau levels of atomically-thin transition metal dicalcogenides | Takafumi Akiho <i>NTT Basic Research Laboratories, NTT Corporation, Atsugi, Japan</i> | Contributed | | Abstract | | | | | |
| 09:30 | | | Oleg Makarovskiy <i>University of Nottingham, Nottingham, United Kingdom</i> | Contributed | Elyjah Kiyooka <i>Univ. Grenoble Alpes, CEA-IRIG, Grenoble, France</i> | | | Contributed | Abstract | | | |
| 09:45 | | | High Temperature Giant Quantum Hall Effect In Metal Chalcogenide/Graphene Heterostructures | Robin Dolleman <i>RWTH Aachen University, Aachen, Germany</i> | Contributed | | | Wladislaw Michailow <i>Cavendish Laboratory, University of Cambridge, UK</i> | | Contributed | Abstract | |
| 10:00 | | | Wigner crystals in magic-angle twisted bilayer graphene | Massimo Rontani <i>CNR-NANO, Modena, Italy</i> | Contributed | | | Jan Kunc <i>Charles University, Prague, The Czech Republic</i> | | Contributed | | Abstract |
| 10:15 | | | Pressurized MoS ₂ and monolayer WTe ₂ as ideal excitonic insulators | Kei Kinoshita <i>University of Tokyo, Tokyo, Japan</i> | Contributed | | | Leonid Golub <i>University of Regensburg, Regensburg, Germany</i> | | Contributed | | |
| 10:30 | Twist-controlled resonant tunneling to probe quantum well states of few-layer WSe ₂ | Coffee break | | | | | | | | | | |
| Plenary session 3 - Auditorium | | | | | | | | | | | | |
| 11:00 | Location: Auditorium Chair: Christian Giattli | Moty Heiblum <i>Weizmann Institute of Science, Rehovot, Israel</i> | | Identification and Determination of the Topological Order of a Non-Abelian State: The 5/2 FQHE State | | Abstract | | | | | | |
| 11:45 | | Cory Dean <i>Columbia University, New York, USA</i> | | Exciton condensates in graphene double layers | | | | | | | | |
| 12:30 | | Milan Orlita <i>Université Grenoble Alpes, LNCMI, CNRS, Grenoble, France</i> | | Conference closing | | | | | | | | |
| | Departure | | | | | | | | | | | |

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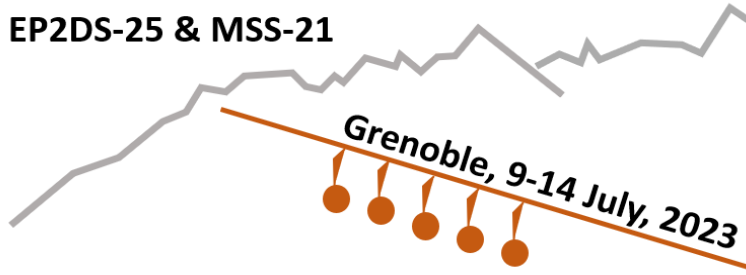
Poster session 1
Monday 10-07-2023
18:00-20:00

| Number | Presenting and/or first author | Title | Link |
|----------|----------------------------------|--|--------------------------|
| Mon - 1 | Markel Pardo | <i>Spectroscopic investigation of Bi₂Te₃/Cr₂Te₃ magnetic heterostructures</i> | Abstract |
| Mon - 2 | Hatice Nur Koyun | <i>Interfacing Single Layer Graphene with Ferromagnets for Terahertz Spintronics</i> | Abstract |
| Mon - 3 | Maxim Trushin | <i>Highly conducting correlated state of crossed electronic bands</i> | Abstract |
| Mon - 4 | Hermann Sellier | <i>Imaging backscattering of quantum Hall edge channels in graphene by scanning gate microscopy</i> | Abstract |
| Mon - 5 | Tatiana Aureliia Uaman Svetikova | <i>Efficient THz third harmonic generation in topological HgTe quantum wells</i> | Abstract |
| Mon - 6 | Yassine Chaouche | <i>Thermal properties of YP_{1-x}Sb_x alloys by Ab initio calculations</i> | Abstract |
| Mon - 7 | Hui Li | <i>Current-induced second-order nonlinear Hall effect in bulk WTe₂</i> | Abstract |
| Mon - 8 | Hyeongseop Kim | <i>Fraunhofer pattern of Josephson junction on a topological insulator</i> | Abstract |
| Mon - 9 | Dipankar Jana | <i>Nonmagnetic ligand substitution in layered NiPX₃ (X=S,Se): Effect on magnon gap excitations and the spin entangled exciton</i> | Abstract |
| Mon - 10 | Miranda Davis | <i>Josephson-like tunnel resonance and large Coulomb drag in GaAs-based electron-hole bilayers</i> | Abstract |
| Mon - 11 | Bikash Chandra Barik | <i>Development of an ionic-liquid gated device on a degenerate semiconductor (Indium Nitride) with a superconducting phase.</i> | Abstract |
| Mon - 12 | Soyun Kim | <i>High-temperature layer-coherent mode and even denominator fractional quantum Hall effect in twisted double bilayer graphene</i> | Abstract |
| Mon - 13 | Mohammed Alezzi | <i>Topological Flat Bands in Super-moiré Lattices</i> | Abstract |
| Mon - 14 | Dohun Kim | <i>Robust Interlayer-Coherent Quantum Hall States in Twisted Bilayer Graphene</i> | Abstract |
| Mon - 15 | Shalini Maji | <i>Visualization of Electron and Hole Trajectories in Normal-Superconductor Junction Using Scanning Gate Microscopy Technique</i> | Abstract |
| Mon - 16 | Dibyendu Kuiri | <i>Non-local spectroscopy of topological superconductivity in Josephson junctions</i> | Abstract |
| Mon - 17 | Pai Zhao | <i>Acoustically-induced pseudo-gauge fields and anomalous transport phenomena in graphene</i> | Abstract |
| Mon - 18 | Michael Kick | <i>Absence of fractional states in HgTe: A Metal-insulator transition at $\nu=1/2$</i> | Abstract |
| Mon - 19 | Odysseas Williams | <i>Optimizing 2DEG structure with strong coupling to cavity field as optical probe of quantum Hall states</i> | Abstract |
| Mon - 20 | Tommaso Venanzi | <i>Free-electron infrared nonlinearities in heavily doped InGaAs nanoantennas</i> | Abstract |
| Mon - 21 | Charles Boudet | <i>Quantum coherence of Fractional Quantum Hall Effect edges: two-particle dynamical interference</i> | Abstract |
| Mon - 22 | Avirup De | <i>Charge pulse detection using meandering quantum Hall edge state capacitive coupling</i> | Abstract |
| Mon - 23 | Mélanie Ruelle | <i>Hong-Ou-Mandel interferences between fractional excitations in the $\nu=1/3$ fractional quantum Hall state</i> | Abstract |
| Mon - 24 | Sabrina Ayari | <i>The Optical properties of exciton in Platinum diselenide PtSe₂</i> | Abstract |
| Mon - 25 | Yuxuan Sun | <i>Ion implantation for the fabrication of Ohmic contacts on GaAs/AlGaAs core-shell nanowires</i> | Abstract |
| Mon - 26 | Elina Pavlovska | <i>Mesoscopic Coulomb collisions of on-demand electrons as a nonlinear quantum optics effect</i> | Abstract |
| Mon - 27 | Seiya Kawasaki | <i>Minigap-induced negative differential resistance in resonant tunneling device based on multi-layer MoS₂</i> | Abstract |
| Mon - 28 | Lucien Besombes | <i>Coupling of the triplet states of a negatively charged exciton in a quantum dot with the spin of a magnetic atom</i> | Abstract |
| Mon - 29 | Mariusz Ciorga | <i>Gate-controlled precession of electrically injected spins in a diffusive 2DEG channel</i> | Abstract |
| Mon - 30 | Benedikt Gruenewald | <i>Nonlinear Spin-to-Charge Conversion and Thermopower in a quantum point contact defined in an inverted GaAs/(Al,Ga)As 2DEG</i> | Abstract |
| Mon - 31 | Elric Frigerio | <i>Tunable Edge Magnetoplasmon Resonator</i> | Abstract |
| Mon - 32 | Xin Qin | <i>High Resolution All-fiber AC Dilatometer</i> | Abstract |
| Mon - 33 | Inge Van Rens | <i>Electronic properties of hydrogenated graphene</i> | Abstract |

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|----------|---------------------------|---|--------------------------|
| Mon - 34 | Erik Cheah | MBE-growth of high-mobility InSb and hybrid InAs/Al heterostructures | Abstract |
| Mon - 35 | Yuki Tsuji | Quantum Hall states of large-angle twisted bilayer graphene revealed in a carbon-doped hexagonal boron nitride tunnel junction | Abstract |
| Mon - 36 | Jashwanth Shaju | Time-resolved tunneling of a flying electron at a beam splitter | Abstract |
| Mon - 37 | Karolina Połczyńska | Coherent imaging and dynamics of exciton complexes in MoSe ₂ monolayers epitaxially grown on a hexagonal boron nitride | Abstract |
| Mon - 38 | Arthur Pogosov | Electron-electron scattering length in suspended 2DEG measured by transverse magnetic focusing | Abstract |
| Mon - 39 | Diego Fossion | Kondo cloud extension around quantum dots | Abstract |
| Mon - 40 | Thomas Vasselon | On-chip picosecond electrical pulses for flying qubits | Abstract |
| Mon - 41 | Matteo Aluffi | Ultrashort electron wavepackets via frequency-comb synthesis | Abstract |
| Mon - 42 | Niels Ubbelohde | Universal scaling of adiabatic tunneling out of a shallow confinement potential | Abstract |
| Mon - 43 | Garg Manjari | Shot Noise Measurements in Graphene Quantum Point Contacts in the Quantum Hall Regime | Abstract |
| Mon - 44 | Frank Hohls | Exploring the potential of two-gate operation of tunable-barrier single-electron pumps | Abstract |
| Mon - 45 | Jaroslav Pawłowski | Valley correlations and Wigner zigzag phase of interacting holes in a gated WSe ₂ quantum channel | Abstract |
| Mon - 46 | Junjie He | Ab initio study of laser driven ultrafast spin dynamics at 2D limit | Abstract |
| Mon - 47 | Sattigeri Raghottam | Ab-initio overestimation of the topological region in Eu-based compounds | Abstract |
| Mon - 48 | Eileen Schneider | Raman and photoluminescence studies on twisted bilayer CVD-grown MoS ₂ | Abstract |
| Mon - 49 | Tobias Dierke | Raman spectroscopy of patterned functionalized graphene and twisted bilayer graphene | Abstract |
| Mon - 50 | Mathieu Pierre | Investigating Quantum Hall effect in graphene on SiC | Abstract |
| Mon - 51 | Walter Escoffier | High magnetic field breakdown of the inverted band gap in symmetric three-layer InAs/GaInSb quantum wells | Abstract |
| Mon - 52 | Thomas Gerster | Optimized Single-Electron Pumps for a Quantum Current Standard | Abstract |
| Mon - 53 | Lara Ostertag | Graphite gate pre-patterning with local anodic oxidation: towards higher quality graphene quantum devices | Abstract |
| Mon - 54 | Amit Pawbake | High pressure tuning of the magnon-polaron resonance in the layered antiferromagnet FePS ₃ | Abstract |
| Mon - 55 | Ze Don Kvon | Giant microwave photoconductance of short-channel MOSFETs | Abstract |
| Mon - 56 | Mirko Bacani | Scanning-probe and magneto-optical studies of integer and fractional moiré Chern insulators in van der Waals bilayers | Abstract |
| Mon - 57 | Florian Le Mardelé | Tuning of the magnetic order in the van der Waals' magnetic compound: Fe _x Ni _{1-x} PS ₃ | Abstract |
| Mon - 58 | Markus Aspegren | Quantum dots with strong spin-orbit coupling in a crystal-phase defined 2D-electron gas | Abstract |
| Mon - 59 | Tomasz Woźniak | Excellent excitonic properties of novel hexagonal MA ₂ Z ₄ monolayers | Abstract |
| Mon - 60 | David Fernández-Fernández | On how to perform parallel hole spin qubit gates and long-range transfer in quantum dot arrays as quantum links | Abstract |
| Mon - 61 | Artur Slobodeniuk | Ultrafast valley-selective coherent optical manipulation with excitons in transition metal dichalcogenide monolayers | Abstract |
| Mon - 62 | Yin Yefei | Breakdown of the strong Fermi-level pinning at filling factor $\nu = 2$ in n- and p-type molecularly doped monolayer epitaxial graphene | Abstract |
| Mon - 63 | Leonid Bovkun | Tuning the band structure for narrowgap HgTe QWs with Cd-doping | Abstract |
| Mon - 64 | Trevor David Rhone | Artificial intelligence guided materials discovery of two-dimensional magnets | Abstract |
| Mon - 65 | Maxime Thumin | Flat band superconductivity in a system with tunable quantum metric: the stub lattice | Abstract |
| Mon - 66 | Jacek Kasprzak | Improving optical response of layered semiconductors via hBN encapsulation | Abstract |
| Mon - 67 | Jacek Kasprzak | Coherence and density diffusion of excitons in a homogeneously broadened quantum well measured with nonlinear spectroscopy | Abstract |
| Mon - 68 | Wanki Park | Coulomb interactions in the collision of hot electrons: a theoretical study | Abstract |
| Mon - 69 | Bo Yang | The gravitons in fractional quantum Hall systems: neutral excitations from the interplay between geometry and topology | Abstract |
| Mon - 70 | Maurice Bal | Quantum Hall effect in InAsSb quantum wells at elevated temperatures | Abstract |
| Mon - 71 | Oleksandr Zheliuk | Layer-dependent study of Shubnikov-de Haas oscillations in NdTe ₃ | Abstract |
| Mon - 72 | Hwanchul Jung | Observation of Electronic Modes in Open Cavity Resonator | Abstract |
| Mon - 73 | Alexey Suslov | Concurrent presence of two distinct hole phases in the vicinity of the Landau level filling factors 1 and 1/3 in high-quality p-GaAs/AlGaAs | Abstract |
| Mon - 74 | Christian Marty | Nearly vanishing Hall resistances for integer filling factors in a counterflow experiment on a 2D bilayer system | Abstract |
| Mon - 75 | Haruki Sanada | Spin state tomography with magneto-optic effect assisted by large hole g-factor in semiconductor two-dimensional systems | Abstract |
| Mon - 76 | Renfei Wang | Experimental study of the 2-D electron system interact with surface acoustic wave | Abstract |

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|----------|---------------------|--|--------------------------|
| Mon - 77 | Mengmeng Wu | <i>Morphing of quantum phases when hosting current</i> | Abstract |
| Mon - 78 | Daiqiang Huang | <i>Magneto-optic Kerr effect measurement of 2D electron system at mK-temperature</i> | Abstract |
| Mon - 79 | Amina S. L. Ribeiro | <i>Modulation of charge carrier densities in InAs/GaSb heterostructures separated by an AlSb barrier</i> | Abstract |
| Mon - 80 | Nathan Aubergier | <i>Enhancement of the valley splitting by many-body interactions in a 2D electrons gas close to the Si/SiO₂ interface</i> | Abstract |
| Mon - 81 | Lina Bockhorn | <i>Importance of the electron density regarding the giant negative magnetoresistance</i> | Abstract |
| Mon - 82 | Romain Danneau | <i>Tracking supercurrent paths in multiterminal Josephson junctions</i> | Abstract |
| Mon - 83 | Guan-Zhang Lu | <i>Wrinkled 2D Materials for Stretchable Optoelectronic Devices</i> | Abstract |
| Mon - 84 | Shuichi Iwakiri | <i>Gate-tunable superconducting constriction in magic angle twisted bilayer graphene</i> | Abstract |
| Mon - 85 | Wenmin Yang | <i>Coulomb-mediated pairing in graphene Fabry-Pérot quantum Hall Interferometer</i> | Abstract |
| Mon - 86 | Olivio Chiatti | <i>In-plane electric-field-induced shift of spin-dependent resistivity at transitions between quantum Hall plateaus in an InAs-based quantum well</i> | Abstract |
| Mon - 87 | Olivio Chiatti | <i>Low-temperature magnetoresistance hysteresis in Vanadium-doped Bi₂Te_{2.4}Se_{0.6} bulk topological insulators</i> | Abstract |
| Mon - 88 | Jakub Kierdaszuk | <i>PL enhancement in mono- and few-layer WSe₂ doped with cobalt and vanadium</i> | Abstract |
| Mon - 89 | Andrei Pimenov | <i>Terahertz magneto-oscillations in 2D quantum wells</i> | Abstract |
| Mon - 90 | Chenjiang Qian | <i>Probing Exciton-Photon-Phonon Interactions in Hybrid High-Q hBN Nanocavities with MoS₂ Monolayers</i> | Abstract |
| Mon - 91 | Albert Koop | <i>Commensurability oscillations in the 3D topological insulator HgTe</i> | Abstract |
| Mon - 92 | Ben Khalifa Haithem | <i>Screening of the synthesis route on the structural, magnetic and magnetocaloric properties of La_{0.6}Ca_{0.2}Ba_{0.2}MnO₃ manganite: A comparison between solid-solid state process and a combination polyol process and Spark Plasma Sintering</i> | Abstract |
| Mon - 93 | Cécile Naud | <i>Quantum transport in monolithic Al/Ge nanowire heterostructures</i> | Abstract |

EP2DS-25 & MSS-21



Poster session 2
 Tuesday 11-07-2023
 18:00-20:00

| Number | Presenting and/or first author | Title | Link |
|----------|--------------------------------|--|--------------------------|
| Tue - 1 | Wenlu Lin | Charge Instability and Hysteresis in Capacitance at Landau Level Crossing | Abstract |
| Tue - 2 | Dmitriy Pokhobov | Electron transport in a trench-type quantum point contacts with multiwell confinement | Abstract |
| Tue - 3 | Anton Shchepetilnikov | Valley pseudospin probed by electron spin resonance | Abstract |
| Tue - 4 | Barbara Keran | DC Transport and Magnetotransport Properties of the 2D Isotropic Metallic System with the Fermi Surface Reconstructed by the Charge Density Wave | Abstract |
| Tue - 5 | Emmanuel Baudin | Magneto-exciton instability and quantum Hall breakdown in graphene | Abstract |
| Tue - 6 | Ethirajulu Senthamarai Kannan | Light induced antidoping effect in Molybdenum di-Sulphide | Abstract |
| Tue - 7 | Tommaso Venanzi | Probing strong electron-phonon coupling in graphene by resonance Raman Spectroscopy with infrared excitation energy | Abstract |
| Tue - 8 | Alina Wania Rodrigues | Magic angle twisted bilayer graphene nanoribbons in magnetic field | Abstract |
| Tue - 9 | Naoto Nakatsuji | Multi-scale lattice relaxation in asymmetric twisted trilayer graphenes | Abstract |
| Tue - 10 | Adeline Crepieux | Topological edge states and Chern numbers in monolayer, bilayer and trilayer | Abstract |
| Tue - 11 | Zeyu Hao | Novel interlayer quantum Hall states in double bilayer graphene | Abstract |
| Tue - 12 | Christoph Adam | Entropy of a quantum dot in bilayer graphene | Abstract |
| Tue - 13 | Datta Anushree | Heavy quasiparticles and cascades without symmetry breaking in twisted bilayer graphene | Abstract |
| Tue - 14 | Takuto Kawakami | Topological Domain Walls in Doped Graphene Nanoribbons | Abstract |
| Tue - 15 | Petra Grozić | Magnetoconductivity of CaC_6 with a CDW-reconstructed Fermi Surface | Abstract |
| Tue - 16 | Johmen Tomoya | Radio-frequency reflectometry measurement in bilayer graphene microdevices | Abstract |
| Tue - 17 | Feiran Wang | Scalable and Multifunctional Sensors by Inkjet Printed Graphene Network | Abstract |
| Tue - 18 | Lyudmila Turyanska | Quantum nature of charge transport in inkjet-printed graphene studied in magnetic fields up to 60T | Abstract |
| Tue - 19 | Ghafour Mohseni Mahan | Optical detection of Majorana zero mode in a quantum dot nanowire | Abstract |
| Tue - 20 | Fernández-Fernández David | On how to perform parallel hole spin qubit gates and long-range transfer in quantum dot arrays as quantum links | Abstract |
| Tue - 21 | Yamahata Gento | Coulomb collisions in coupled Si single-electron pumps | Abstract |
| Tue - 22 | Sato Yosuke | Supercurrent enhancement of InAs Josephson junction induced by magnetic vortices | Abstract |
| Tue - 23 | Christopher Fuchs | Backscattering in Z2 topological insulators via isotropic Kondo interactions of quantum spin Hall edge channels with localized impurities | Abstract |
| Tue - 24 | Colin Piquard | Observation of a single Kondo impurity universally screened using a charge pseudospin | Abstract |
| Tue - 25 | Rui Sakano | Evaluation of the Kondo temperature from linear conductance measurements in magnetic fields in a carbon nanotube quantum dot | Abstract |
| Tue - 26 | Kim Kyungtae | Topological Josephson Trijunctions: Majorana Source and Path | Abstract |
| Tue - 27 | Dorsa Fartab | Tunable spin-orbit interaction and insulator-metal transition in ionic gated tellurium | Abstract |
| Tue - 28 | Mikio Eto | Scattering theory for transport through quantum dot in AC field | Abstract |
| Tue - 29 | Mikio Eto | Numerical study on transport through quantum dot interferometer in Kondo regime | Abstract |
| Tue - 30 | Kuroda Takumi | Machine learning study for the flat band states of a random molecular-orbital model | Abstract |
| Tue - 31 | Johannes C. Bayer | A Single-Electron Transistor under Periodic Driving | Abstract |
| Tue - 32 | Kicheon Kang | How to measure local phase shift of the Aharonov-Bohm effect with superconducting interferometry | Abstract |
| Tue - 33 | Donghoon Kim | Entanglement and Spin Cloud in Exotic Kondo Effects | Abstract |
| Tue - 34 | Hiroshi Akera | Spin-velocity locking originating from the helical symmetry | Abstract |
| Tue - 35 | Joseph Page | Probing Intralayer and van der Waals Interlayer Bonding in α - and β - In_2Se_3 | Abstract |
| Tue - 36 | Marcin Mucha-Kruczynski | Controlling charge density order in 2H-TaSe_2 using a van Hove singularity | Abstract |
| Tue - 37 | Louis Gaudreau | Gated Quantum Structures in Monolayer WSe_2 | Abstract |
| Tue - 38 | Chengjie Zhou | Probing the Electronic Structures of Monolayer MoS_2 by Gate-controlled Resonant Tunneling Spectroscopy | Abstract |
| Tue - 39 | Chithra Harihara Sharma | Addressing the spin-valley flavors in moiré mini-bands of MoS_2 | Abstract |

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|----------|---------------------|---|--------------------------|
| Tue - 40 | David Santos Cottin | <i>EuCd₂As₂ : a magnetic semiconductor</i> | Abstract |
| Tue - 41 | Pierre-Maurice Piel | Magnetic anisotropy in excitonic resonances and exciton-phonon coupling of the 2D magnetic semiconductor CrSBr | Abstract |
| Tue - 42 | Olga Ken | Optically induced spin electromotive force in ferromagnetic-semiconductor quantum well structure | Abstract |
| Tue - 43 | Ina Kalitukha | Universal magnetic proximity effect in ferromagnet – semiconductor quantum well hybrid structures | Abstract |
| Tue - 44 | Yevheniia Chernukha | <i>Electrical properties of 1T-TaSe₂ monolayer on GaP</i> | Abstract |
| Tue - 45 | Benjamin Dewes | Wafer-scale two-dimensional semiconductors for deep UV photosensing | Abstract |
| Tue - 46 | Madhu Thalakulam | <i>Scalable NbSe₂-NbSe₂ over-damped van der Waals Josephson junctions</i> | Abstract |
| Tue - 47 | Madhu Thalakulam | <i>Macroscopic manifestation of backaction due to quantum tunnelling of electrons</i> | Abstract |
| Tue - 48 | Strenzke Vincent | Coplanar waveguides for sensitive microwave spectroscopy in two-dimensional materials | Abstract |
| Tue - 49 | Samaddar Sayanti | <i>Probing Electrical Transparency of WS₂/ Graphene Interfaces by Four Point Probe Transport</i> | Abstract |
| Tue - 50 | Kunihashi Yoji | <i>Enhancement of Rashba spin-orbit interaction in GaAsBi thin film</i> | Abstract |
| Tue - 51 | Nicolas Ubrig | <i>Light Sources with Bias Tunable Spectrum based on van der Waals Interface Transistors</i> | Abstract |
| Tue - 52 | Ze Don Kvon | Two-dimensional topological Anderson insulator in HgTe quantum wells with inverted spectrum | Abstract |
| Tue - 53 | Benoit Jouault | Large inverted band gap and edge conduction in strained three-layer InAs/GaSb quantum wells | Abstract |
| Tue - 54 | Ran Chen | Investigation of terahertz photoelectric tunable-step detectors: dependence of performance on antenna parameters | Abstract |
| Tue - 55 | Yashika Kapoor | Evolution of inter-Landau level transitions in the canted antiferromagnetic state of bilayer graphene | Abstract |
| Tue - 56 | Norio Kumada | <i>Ultrafast Dynamics of Optical-to-Electrical Conversion in Black Phosphor</i> | Abstract |
| Tue - 57 | Shinji Kuroda | MBE growth and magnetic properties of the ordered structure of magnetic topological insulator MnSb ₂ Te ₄ | Abstract |
| Tue - 58 | Shota Norimoto | Photon emission by hot electron injection across a lateral pn junction | Abstract |
| Tue - 59 | Dmitriy Kozlov | Giant Magnetoresistance and Edge Channels of 3D Topological insulator based on HgTe film | Abstract |
| Tue - 60 | Igor Rozhansky | <i>Terahertz Spin-Light Coupling in Proximitized Dirac Materials</i> | Abstract |
| Tue - 61 | Leonid Golub | Nonlinear optical absorption and photocurrents in topological insulators | Abstract |
| Tue - 62 | Arwin Kool | Uniaxial strain on narrow gap semiconductors | Abstract |
| Tue - 63 | Saxena Ruchi | Electroluminescence study on a lateral PN junction in a perpendicular magnetic field | Abstract |
| Tue - 64 | Gerrit Behner | Magnetoconductance symmetry breaking driven by an in-plane magnetic field in topological insulator kinks | Abstract |
| Tue - 65 | Ruqiao Xia | Single-layer graphene-loaded metasurface for terahertz intensity modulation | Abstract |
| Tue - 66 | Davide Pizzirani | Thickness-dependent electronic properties of the Dirac nodal line semimetal ZrSiSe | Abstract |
| Tue - 67 | Yusuke Nakazawa | Effects of GaAs buffer layer on MBE-grown quantum anomalous Hall insulator V _y (Bi _x Sb _{1-x}) _{2-y} Te ₃ | Abstract |
| Tue - 68 | Alina Khisameeva | The spin-orbit interaction in ZnO/MgZnO heterojunctions probed by spin resonance spectroscopy | Abstract |
| Tue - 69 | Sylvain Perret | Tailoring the properties of quantum dot-micropillars by ultrafast optical injection of free carriers | Abstract |
| Tue - 70 | Kenji Shibata | Gate-tunable carrier transport through single PbS colloidal quantum dots | Abstract |
| Tue - 71 | Isobe Takuma | Non-Hermitian topology in a photonic crystal composed of negative index media | Abstract |
| Tue - 72 | Alex Delhomme | Strain control of exciton and trion spin-valley dynamics in monolayer transition metal dichalcogenides | Abstract |
| Tue - 73 | Olfa Dani | Single-electron tunneling through InAs double quantum dots as a function of temperature and magnetic field | Abstract |
| Tue - 74 | Giacomo Mariani | Spin transfer dynamics in the presence of potential puddles in WSe ₂ monolayers | Abstract |
| Tue - 75 | Thomas Schaeppers | Flux-periodic oscillations in the transport properties of core/shell GaAs/InAs nanowires equipped with normal and superconducting contacts | Abstract |
| Tue - 76 | Lucien Besombes | Optical control of a hole-Cr ⁺ nano-magnet in a semiconductor quantum dot | Abstract |
| Tue - 77 | Xavier Marie | Control of the Energy and Radiative Linewidth of Excitons in a 2D Semiconductor | Abstract |
| Tue - 78 | Yui Muto | Automatic charge state estimation in quantum dots by machine learning and visual explanation of the model with Grad-CAM | Abstract |
| Tue - 79 | Piotr Wojnar | Strain and quantum confinement induced change from light hole to heavy hole character of excitons in ultra-thin (Cd,Mn)Te/(Cd,Mg)Te core/shell nanowires | Abstract |
| Tue - 80 | Zijing Jin | Quantitative analysis of the polarization behaviors of trion states in monolayer WS ₂ under a magnetic field | Abstract |

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| Tue - 81 | Aleksandra Lopion | <i>P- and n-type Doped (Cd,Mn)Te QWs in Optically Detected Magnetic Resonance</i> | Abstract |
| Tue - 82 | Georgios Giavaras | <i>Tunable supercurrents in full-shell nanowire Josephson junctions</i> | Abstract |
| Tue - 83 | Young Dong Kim | <i>Detection of biexcitons in monolayer WS₂ using the maximum entropy method: a byproduct of noise reduction</i> | Abstract |
| Tue - 84 | Mateusz Dyksik | <i>Bright - dark exciton splitting in 2D layered perovskites</i> | Abstract |
| Tue - 85 | Rajan Singh | <i>Development of a milli-kelvin Quantum Scanning Single Electron Transistor (SET) Microscope</i> | Abstract |
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| Tue - 88 | Xuejian Gao | <i>Heesch Weyl Fermions in inadmissible chiral antiferromagnets</i> | Abstract |
| Tue - 89 | Olivio Chiatti | <i>Excess noise in Al_xGa_{1-x}As/GaAs-based quantum rings</i> | Abstract |
| Tue - 90 | Olivio Chiatti | <i>Tuning metal/superconductor to insulator/superconductor coupling via control of proximity enhancement between NbSe₂ monolayers</i> | Abstract |
| Tue - 91 | Sonia Haddad | <i>Twisted bilayer graphene reveals its at bands under spin pumping</i> | Abstract |
| Tue - 92 | Trung Ha Quang | <i>Anyon dynamics and spin-statistics relation in the fractional quantum Hall effect from conformal Hilbert space hierarchy</i> | Abstract |
| Tue - 93 | Ivan Mohelsky | <i>Temperature dependence of the energy band gap in ZrTe₅: Implications for the topological phase</i> | Abstract |
| Tue - 94 | Changki Hong | <i>Observation of braiding statistics in injecting diluted anyons</i> | Abstract |