

ICP2DC4 AGENDA



Day 1 - Tuesday June 11, 2019

09:00 to 09:15	Alexey Kavokin Chairman Opening Ceremony
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Photonic Crystals and Structures Session Chair: Alexey Kavokin

09:20 to 10:00	Yasuhiko Arakawa Plenary Speaker <i>Excitons in quantum dots for advanced light sources with photonic nanostructures</i>
10:00 to 10:30	Zhanghai Chen Invited Speakers <i>t.b.d.</i>
10:30	Break

Technology of Thin Crystals Session Chair: Brian Gerardot

11:00 to 11:30	Takashi Taniguchi Invited Speaker <i>Synthesis of boron nitride and other 2D single crystals under high pressure</i>
11:30 to 12:00	Kazuhiko Hara Invited Speaker <i>Improvement in the luminescence property of hexagonal boron nitride grown by CVD on a c-plane sapphire substrate</i>
12:00 to 12:15	Yuhuai Liu <i>Two-dimensional h-BN multilayer grown on AlN by metalorganic vapor phase epitaxy</i>
12:45	Lunch

Defects and Quantum dots in 2D layers Session Chair: Marek Potemski

14:00 to 14:30	Rudolf Bratschitsch Invited Speaker <i>Single-photon emitters in 2D materials</i>
14:30 to 15:00	Brian Gerardot Invited Speaker <i>Valley-Dependent Properties of Moiré Trapped Interlayer Excitons</i>
15:00 to 15:30	Ajit Srivastava Invited Speaker <i>Single photons, phonons and spins atomically thin WSe₂</i>
15:30 to 15:45	Zai-Quan Xu <i>Fabrication and electrically tuning of ultra-pure quantum emitters in hBN</i>
15:45 to 16:00	Julian Klein <i>Atomistic defect states as quantum emitters in monolayer MoS₂</i>

16:00 | Break

Quantum Materials and Graphene I
Session Chair:

16:15 to 16:45	Alexey Kavokin Invited Speaker <i>Free Standing Monoatomic Carbon Chains</i>
16:45 to 17:15	Jiun-Haw Chu Invited Speaker <i>Strain-tuned topological phase transition in ZrTe_5</i>
17:15 to 17:45	Tatiana Shubina Invited Speakers <i>Exciton states and radiative properties of chalcogenide nanotubes and related nanostructures</i>

POSTER SESSION

VIP DINNER

Day 2 - Wednesday June 12, 2019

Quantum Materials and Graphene II Session Chair: Takashi Taniguchi

09:00 to 09:30	Hongqi Xu Invited Speaker <i>Semiconductor InSb nanolayers: A new platform for developments of quantum and topological devices</i>
09:30 to 10:00	Annika Kurzmann Invited Speakers <i>Electrostatically-Defined Quantum Dots in Bilayer Graphene</i>
10:00 to 10:15	Bin Cao <i>Unbiased, non-equilibrium photo-carrier transport in the quantum Hall regime</i>
10:15	Break

Excitons in TMD I Session Chair: Rudolf Bratschitsch

10:30 to 11:00	Xiaodong Xu Invited Speaker <i>t.b.d.</i>
11:00 to 11:30	Alexey Chernikov Invited Speaker <i>Dielectric disorder and exciton propagation in 2D semiconductors</i>
11:30 to 11:45	Kai-Qiang Lin <i>Electromagnetically induced transparency in second-harmonic generation from monolayer WSe₂</i>
11:45	Break

Theory I Session Chair: Andreas Knorr

12:00 to 12:30	Pawel Hawrylak Invited Speaker <i>Optical properties of 2D crystals: band nesting, exciton spectrum, robust trions and laser cooling</i>
12:30 to 13:00	Iann Gerber Invited Speaker <i>Beyond standard density functional theory investigations of optical properties of transition metal dichalcogenides based structures</i>
13:00	Lunch

Excitons in TMD II Session Chair: Alexey Chernikov

14:30 to 15:00	Marek Potemski Invited Speaker <i>Direct bandgap excitons in atomically thin semiconductors</i>
15:00 to 15:15	Jonas Gael Roch <i>Spin-Polarized Electrons in Monolayer MoS₂</i>
15:15 to 15:45	Shiwei Wu Invited Speaker <i>Unveiling the Defect Structure of Localized Excitons in WSe₂ Monolayer</i>
15:45	Break

Theory II

Session Chair: Pawel Hawrylak

16:15 to 16:45	Friedhelm Bechstedt Invited Speaker <i>Quantum spin Hall phase versus quantized spin Hall conductivity?</i>
16:45 to 17:15	Alexander Steinhoff Invited Speaker <i>Biexciton fine structure in monolayer transition metal dichalcogenides</i>
17:15 to 17:45	Andreas Knorr Invited Speaker <i>Theory of ultrafast excitonic intervalley dynamics in TMDs: interplay of dark states, phonons and Coulomb exchange</i>
17:45 to 18:00	Pierre Gilliot <i>Exciton Fine-Structure in Transition-Metal Dichalcogenides Mono-Layers</i>

CONFERENCE BANQUET

Day 3 - Thursday June 13, 2019

TMD Polaritons I Session Chair: Christian Schneider

09:00 to 09:30	Paul Walker Invited Speakers <i>Polariton nonlinear interactions - from GaAs waveguides to transition metal dichalcogenide microcavities</i>
09:30 to 09:45	Mateusz Król <i>Valley polarization of exciton-polaritons in monolayer WSe2 in a tunable microcavity</i>
09:45	Break

Perovskites Session Chair: Antonio Polimeni

10:00 to 10:30	Su Rui Invited Speaker <i>Optical Properties and Strong Light-Matter Coupling in 2D Perovskite Crystals</i>
10:30 to 11:00	Jochen Feldmann Invited Speaker <i>Halide Perovskite Nanocrystals: from platelets to supercrystals</i>
11:00 to 11:15	Michał Baranowski <i>Optical spectroscopy of 2D perovskites in high magnetic fields</i>

EXCURSION

Day 4 - Friday June 14, 2019

TMD polaritons II Session Chair: Alexander Högele

09:00 to 09:45	Atac Imamoglu Plenary Speaker <i>Many-body optical excitations in solid-state systems</i>
09:45 to 10:15	Jie Gu Invited Speakers <i>Control of light-matter interaction in Van der Waals materials</i>
10:15 to 10:30	Kyoung-Duck Park <i>Probing nanoscale light-matter interactions in atomically thin semiconductors</i>
10:30	Break

Excitons in TMD III Session Chair: Evgeny Alexeev

11:00 to 11:30	Alexander Högele Invited Speaker <i>Cavity and magnetic field control of interlayer excitons in van der Waals heterobilayers</i>
11:30 to 11:45	Roman Cherbunin <i>Kerr rotation study of indirect excitons in WSe_2 / $Mo_{0.5}W_{0.5}Se_2$ heterostructures</i>
11:45 to 12:00	Philipp Merkl <i>Internal structure and ultrafast dynamics of interlayer excitons in van der Waals hetero-bilayers</i>

Round-Table Collaboration East-West in 2D Physics

13:00	Lunch
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TMD polaritons III Session Chair: Paul Walker

14:00 to 14:15	Yan Xue <i>Generation and memory of a temporal pulse train in a polariton condensate</i>
14:15 to 14:30	Vasily Kravtsov <i>Strong coupling of excitons in $MoSe_2$ and optical bound states in the continuum</i>
14:30 to 14:45	Matthias Wurdack <i>Hybrid polariton condensation in a $MoSe_2$-GaAs Tamm device</i>
14:45	Break

Excitons in TMD IV
Session Chair: Atac Imamoglu

15:15 to 15:45	Evgeny Alexeev Invited Speaker <i>Controlling the optical properties of van der Waals heterostructures by interlayer rotation</i>
15:45 to 16:15	Antonio Polimeni Invited Speaker <i>Controlled micro/nano-dome formation in proton-irradiated bulk transition-metal dichalcogenides</i>
16:15 to 16:45	Cedric Robert Invited Speaker <i>Control of the exciton radiative lifetime in van der Waals heterostructures</i>
16:45 to 17:00	Florian Sigger <i>Hybridized indirect excitons in MoS_2/WS_2 heterobilayers</i>

Announcement for next ICP2DC
Alexey Kavokin

