From 29th July to 3rd August, 2018
MONTPELLIER / Corum - France

PROGRAMME

WWW.ICPS2018.ORG
The 34th International Conference on the Physics of Semiconductors will be held in Montpellier from July 29th to August 3rd 2018 included. It follows a series of biannual meetings that started in 1950 at Exeter (UK). The biannual ICPS conferences cover all aspects of semiconductor physics and gather scientists from all over the world. This international forum has proven to be an ideal spot to exchange ideas and initiate collaborations. We hope ICPS 24 will continue this tradition.

ICPS has always been at the forefront of expanding fields from band structure calculations and transport phenomena to quasi 2D heterostructures, integer and fractional Quantum Hall Effects, spin dependent effects, magnetism.... Although all topics in semiconductors will be represented at our conference, 34th ICPS will be no exception in emphasizing new trends and novel aspects. For this purpose, the Advisory and Program Committees have selected plenary and invited talks that reflect the emergence/importance of new fields such as 2D semiconductors, wide bandgap materials, perovskites, nano-circuits for quantum measurements, semiconductor quantum Qbits.

We have received more than 1100 abstracts that have been carefully examined by at least three referees. The averaged marks have dictated the fate of the abstract: poster, oral or invited.

We hope that all the scientists who will attend 34th ICPS will enjoy the conference as well as the social program: welcome reception, excursions, and banquet at Valmagne abbey.

We hope the ICPS organizers
Committees

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J. EVEN, France
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A. FAINESTEIN, Argentina
G. FEVE, France
J. FINLEY, Germany
A. FIORE, Netherlands
V. GAVRILENKO, Russia
B. GAYRAL, France
D. GERSHONI, Israel
N. GIPPIUS, Russia
M. GLAZOV, Russia
D. GOLDBERG, USA
N. GRANDJEAN, Switzerland
M. GUINA, Finland
P. HAKONEN, Finland
J-C. HANSEN, France
P. HAWRYLAK, Canada
S. HOEFLING, Germany
F. JAHNKE, Germany
D. JENA, USA
B-T. JONKER, USA
B. JOUVAULT, France
A. KAVOKIN, UK
Y. KAWAKAMI, Japan
K. KISHINO, Japan
P. KOENRAAD, Netherlands
P. KOSSACKI, Poland
R. KUDRAWIEC, Poland
Y-H. LEE, Korea
H. LIU, UK
P. LINDROTH, Sweden
P. LUSTOZA DE SOUZA, Brasil
R. MARTEL, Canada
J. MAULTZSCH, Germany
J. MEJER, Germany
J. MORTON, UK
C. MÜLLER, Germany
A. PATANE, USA
F. PEETERS, Belgium
N. PELEKANOS, Greece
E. PELUCCHI, Ireland
J. PETTA, USA
M. POTEMSKI, France
M. PORTNOI, UK
A. RASTELLI, Austria
S. REITZENSTEIN, Germany
D. RITCHIE, UK
H. SCHNEIDER, Germany
G. SOLOMON, USA
C. SIRTORI, France
T. TAKEUCHI, Japan
S. TARUCHA, Japan
A. TREDCIUCCI, Italy
K. UNTERRAINER, Austria
B. URBASZEK, France
L. VINA, Spain
M. VINET, France
A. WACKER, Sweden
X. WANG, China
W. WEGSCHEIDER, Switzerland
L. WIRTZ, Luxembourg
J. WRACHTRUP, Germany
H. YAMAGUCHI, Japan
C-C. YANG, Taiwan
E. YOON, Korea
V. ZWILLER, Sweden
**Synoptic**

**INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS**

**SUNDAY**
29th July, 2018

**LEVEL 0**

<table>
<thead>
<tr>
<th>Time</th>
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<th>Event</th>
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<tbody>
<tr>
<td>12:00</td>
<td>Foyer Pasteur</td>
<td>Registration</td>
</tr>
<tr>
<td>14:00</td>
<td>Foyer Pasteur</td>
<td>Nobel Symposium</td>
</tr>
<tr>
<td>16:45</td>
<td>Audit. Berlioz</td>
<td>COFFEE BREAK</td>
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<tr>
<td>18:15</td>
<td>Foyer Pasteur</td>
<td>WELCOME RECEPTION</td>
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**MONDAY**
30th July, 2018

**LEVEL 0**

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<td>08:00</td>
<td>Audit. Berlioz</td>
<td>OPENING</td>
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<tr>
<td>08:30</td>
<td>Audit. Berlioz</td>
<td>PLENARY SESSION</td>
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<tr>
<td>10:30</td>
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<td>PLENARY SESSION</td>
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<td>13:30</td>
<td>Audit. Berlioz</td>
<td>LUNCH BREAK</td>
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<tr>
<td>13:30</td>
<td>Joffre 1</td>
<td>2D materials and Van der Waals heterostructures - 1</td>
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<tr>
<td>13:30</td>
<td>Antigone 1</td>
<td>Devices and applications - 1</td>
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<td>13:30</td>
<td>Antigone 1</td>
<td>Wide bandgap 1</td>
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<tr>
<td>13:30</td>
<td>Antigone 2</td>
<td>Spintronics and spin phenomena - 1</td>
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<tr>
<td>13:30</td>
<td>Antigone 3</td>
<td>Perovskites and organic semiconductors - 1</td>
</tr>
<tr>
<td>13:30</td>
<td>Barthez</td>
<td>Carbon-based nanostructures - 1</td>
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<tr>
<td>15:30</td>
<td>Rondelet</td>
<td>2D materials and Van der Waals heterostructures - 2</td>
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<tr>
<td>15:30</td>
<td>Joffre 1</td>
<td>Quantum optics and nanophotonics - 1</td>
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<tr>
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<td>Quantum transport in heterostructures - 1</td>
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<td>Antigone 2</td>
<td>Topological insulators - 1</td>
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<td>15:30</td>
<td>Antigone 3</td>
<td>Growth and characterization - 1</td>
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<td>15:30</td>
<td>Rondelet</td>
<td>Semiconductors for MIR and THz - 1</td>
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<td>Rondelet</td>
<td>BREAK</td>
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<td>Rondelet</td>
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<td>AUDIT. EINSTEIN</td>
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<td>08:30 - 10:00</td>
<td>2D materials and Van der Waals heterostructures - 3</td>
<td>Quantum optics and nanophotonics - 2</td>
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<td>2D materials and Van der Waals heterostructures - 4</td>
<td>Optical properties of heterostructures - 1</td>
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<td>2D materials and Van der Waals heterostructures - 5</td>
<td>Quantum optics and nanophotonics - 3</td>
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<td>15:30 - 17:00</td>
<td>Wide bandgap - 3</td>
<td>Topological insulators - 2</td>
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<td>17:30 - 19:30</td>
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**TUESDAY 31st July, 2018**

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<td>ANTIGONE 1</td>
<td>ANTIGONE 2</td>
<td>BARTHEZ</td>
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<tr>
<td>08:30 - 10:00</td>
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<tr>
<td>10:30 - 11:15</td>
<td>Plenary Session</td>
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<tr>
<td>11:15 - 11:45</td>
<td>Women in Science</td>
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<tr>
<td>11:45 - 13:30</td>
<td>POSTER SESSION 3</td>
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# International Conference on the Physics of Semiconductors

**Synoptic**

**Thursday, 2nd August, 2018**

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<td>08:30-10:00</td>
<td>Audit. Einstein</td>
<td>Joffre 1</td>
<td>Antigone 1</td>
<td>Antigone 2</td>
<td>Antigone 3</td>
<td>Barthez</td>
<td>Rondelet</td>
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<tr>
<td>10:30-12:00</td>
<td>2D materials and Van der Waals heterostructures - 6</td>
<td>Topological insulators - 3</td>
<td>Wide bandgap - 4</td>
<td>Spintronics and spin phenomena - 4</td>
<td>Semiconductors for MIR and THz - 3</td>
<td>Physics of nanocrystals and quantum dots - 2</td>
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<tr>
<td>14:00-15:30</td>
<td>2D materials and Van der Waals heterostructures - 7</td>
<td>Optical properties of heterostructures - 2</td>
<td>Quantum transport - 6</td>
<td>Quantum optics and nanophotonics - 4</td>
<td>Growth and characterization - 4</td>
<td>Quantum engineering - 1</td>
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<td>16:00-17:30</td>
<td>Quantum transport in heterostructures - 7</td>
<td>Optical properties of heterostructures - 3</td>
<td>Spintronics and spin phenomena - 5</td>
<td>Late News - 2</td>
<td>Physics of nanocrystals and quantum dots - 3</td>
<td>Point defects and artificial atoms - 2</td>
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**Friday, 3rd August, 2018**

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<td>08:30-10:00</td>
<td>Audit. Pasteur</td>
<td>Joffre 1</td>
<td>Antigone 1</td>
<td>Antigone 2</td>
<td>Antigone 3</td>
<td>Barthez</td>
<td>Rondelet</td>
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<tr>
<td>10:30-12:00</td>
<td>2D materials and Van der Waals heterostructures - 9</td>
<td>Topological insulators - 5</td>
<td>Wide bandgap - 6</td>
<td>Spintronics and spin phenomena - 6</td>
<td>Physics of nanocrystals and quantum dots - 4</td>
<td>Point defects and artificial atoms - 3</td>
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<tr>
<td>13:30-15:00</td>
<td>Plenary Session</td>
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<tr>
<td>15:30-18:30</td>
<td>IUPAP YSP Winners</td>
<td>Best Student Poster Awards</td>
<td>Closing Session</td>
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### Nobel Symposium

**Room Berlioz**

**Moderator(s):** M. Cohen (USA), C. Weisbuch (France)

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>14h00</td>
<td>To be announced</td>
<td>Z. Alferov (Russia)</td>
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<tr>
<td>14h45</td>
<td>Application of quantum Hall effect: The biggest revolution in metrology since the French Revolution</td>
<td>K. von Klitzing (Germany)</td>
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<tr>
<td>15h30</td>
<td>To be Announced</td>
<td>S. Haroche (France)</td>
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**Room Berlioz**

**Moderator(s):** Y. Arakawa (Japan), G. Bastard (France)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>16h45</td>
<td>Group III nitrides as a tool for establishing sustainable smart society</td>
<td>H. Amano (Japan)</td>
</tr>
<tr>
<td>17h30</td>
<td>Topology and Spin - Orbit Coupling in Low Dimensions Lead to Novel Directions in Spintronics</td>
<td>A. Fert (France)</td>
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</tbody>
</table>

**Welcome Reception**
MONDAY 30th July, 2018

08h00-08h30 OPENING SESSION

08h30-10h00 PLENARY SESSION

Moderator: J.M. Gérard (France)

08h30 Bridging two worlds: colloidal vs epitaxial quantum dots
M. Bayer (Germany)

09h15 From epitaxy to science and technologies of metal chalcogenide van der Waals crystals
A. Patané (UK)

10h30-12h00 PLENARY SESSION

Moderator: H. Amano (Japan)

10h30 Hybrid perovskites: An ideal semiconductor platform for high-performance electronic devices
A. Mohite (USA)

11h15 Exploring condensed matter physics with a single spin microscope
V. Jacques (France)

13h30-15h00 PARALLEL SESSIONS

› Room Antigone 1

Wide bandgap - 1

Topic: Wide bandgap
Moderators: J.Y. Duboz (France)

13h30 Copper Iodide, a High-Performance p-Type Wide Bandgap Semiconductor
C. Yang (Germany), M. Kneiß (Germany), P. Schlupp (Germany), Z. Zhang (Germany), H. von Wenckstern (Germany), M. Lorenz (Germany), M. Grundmann (Germany)

13h45 Electrical, thermal and thermo-electrical properties of thin beta-Ga2O3 films
S. Fischer (Germany), R. Ahrling (Germany), J. Boy (Germany), M. Handwer (Germany), R. Miltank (Germany), Z. Galazka (Germany), G. Wagner (Germany)

14h00 Invited - Dielectric function and Raman tensor of epsilon-(In,Ga)2O3 thin films
C. Sturm (Germany), A. Werner (Germany), V. Zviagin (Germany), D. Splith (Germany), H. von Wenckstern (Germany), M. Lorenz (Germany), J. Lenzner (Germany), R. Schmidt-Grund (Germany), M. Grundmann (Germany)

14h30 Epsilon-Ga2O3 epilayers and their application to solar-blind UV detectors
A. Parisini (Italy), M. Pavesi (Italy), A. Baraldi (Italy), M. Bosi (Italy), E. Gombia (Italy), C. Ferrari (Italy), V. Montedoro (Italy), S. Vantaggio (Italy), D. Klimm (Germany), F. Mezzadri (Italy), J. Cora (Hungary), B. Pecz (Hungary), R. Fornari (Italy)

14h45 Gallium Vacancy Defects in β-Ga2O3: a combined Electron Paramagnetic Resonance and Theory Study
H.J. von Bardeleben (France), J.L. Cantin (France), U. Gerstmann (Germany), P. Deak (Germany), W. Lambrecht (USA), D. Skachov (USA)

› Room Antigone 3

Spintronics and spin phenomena - 1

Topic: Spintronics and spin phenomena
Moderators: A. Greilich (Germany), I. Buyanova (Sweden)
13h30 Giant magnetoresistance in carbon nanotubes with single-molecule magnets
I. Krainov (Russia), J. Klier (Germany), A. Dimitiev (Russia), S. Kyatskaya (Germany), M. Ruben (Germany), W. Wernsdorfer (Germany), I. Gornyi (Germany)

13h45 Long-range p-d exchange interaction in Co/CdTe quantum well hybrid structure
I. Kalitkukha (Russia), I. Akinin (Germany), M. Salewski (Germany), S. Poltavtsev (Germany), J. Debus (Germany), D. Kudlack (Germany), V. Saepga (Russia), N. Kopteva (Russia), E. Kirstein (Germany), E. Zhukov (Germany), D. Yakovlev (Germany), G. Karczewski (Poland), M. Water (Poland), T. Wotjowicz (Poland), V. Korenev (Russia), Y. Kusrawie (Russia), M. Bayer (Germany)

14h00 Carrier and Spin Coherent Dynamics in Strained Germanium-Tin Semiconductor on Silicon
F. Pezzoli (Italy), S. de Cesari (Italy), A. Balocchi (France), E. Vitiello (Italy), P. Jahandar (UK), E. Grilli (Italy), T. Amand (France), X. Marie (France), M. Myronov (UK)

14h15 Interface- and strain-driven spin splitting in 2D structures: quantum wells and topological insulators
M. Nestoklon (Russia), S. Tarasenko (Russia)

14h30 Invited - Novel Quantum Spin Hall Paradigm in 2D Honeycomb Layers: Bismuthene
J. Schäfer (Germany)

14h30 Room Berlioz
2D materials and Van der Waals heterostructures - 1

13h30 Invited - Room-temperature polariton condensation in all-inorganic perovskite
C. Diederichs (Singapore), R. Su (Singapore), J. Wang (China), T. Lie (Singapore), J. Zhao (Singapore), S. Liu (Singapore), W. Xu (Singapore), Z. Chen (China), Q. Xiang (Singapore)

13h30 Perovskites and organic semiconductors - 1

13h30 Single-Mode Lasers Based on Cesium Lead Halide Perovskite Submicron Spheres
H. Dong (China), B. Tang (China), L. Sun (China), A. Pan (China), L. Zhang (China)

13h45 Rational Design of Lead-free Halide Perovskites for Optoelectronic Applications
L. Zhang (China)

14h00 First-Principles Study of Ligand Passivation in All-Inorganic Halide Perovskite Colloidal Quantum Dots
Y.H. Kim (South Korea), D. Yoo (South Korea), S.W. Kim (South Korea), J.Y. Woo (South Korea), S. Jeong (South Korea)

14h15 Coherent spin dynamics of electrons and holes in CsPbBr3 perovskite
D. Yakovlev (Germany), V. Belykh (Germany), P. Grigoryev (Russia), M. Hussain (Pakistan), D. Dirin (Switzerland), M. Kovalenkov (Switzerland), M. Bayer (Germany)

14h30 Microscopic Origin of the Valley Hall Effect in Transition Metal Dichalcogenides
N. Ubrig (Switzerland), S. Jo (Switzerland), M. Philippi (Switzerland), D. Costanzo (Switzerland), A.B. Kuzmenko (Switzerland), A.F. Morpurgo (Switzerland)

14h30 Devices and applications - 1

13h30 Invited - Photon-triggered nanowire transistors
H.G. Park (Korea)

14h45 Impact of dark-state-bright-state scattering on exciton luminescence in monolayer WS2 encapsulated by hBN
T. Kuroda (Japan), Y. Hoshi (Japan), T. Machida (Japan), R. Kitaura (Japan), K. Watanabe (Japan), T. Taniguchi (Japan)

14h45 Microscopic Origin of the Valley Hall Effect in Transition Metal Dichalcogenides
N. Ubrig (Switzerland), S. Jo (Switzerland), M. Philippi (Switzerland), D. Costanzo (Switzerland), A.B. Kuzmenko (Switzerland), A.F. Morpurgo (Switzerland)
14h00 Speed up of quantum dot charge sensing utilizing Bayesian estimation
   T. Otsuka (Japan), S. Nagayasu (Japan), T. Nakajima (Japan), M. Delbecq (Japan), J. Yoneda (Japan), K. Takeda (Japan), A. Noiri (Japan), S. Li (Japan), T. Ito (Japan), S. Tarucha (Japan)

14h15 A 2x2 Quantum Dot Analogue Simulator
   U. Mukhopadhyay (Netherlands), J.P. Dehollain (Netherlands), C. Reichl (Switzerland), W. Wegscheider (Switzerland), L.M.K. Vandersypen (Netherlands)

14h30 Tunneling controlled stochastic resonance in a driven single-electron quantum dot
   T. Wagner (Germany), J.C. Bayer (Germany), E.P. Rugeramigabo (Germany), P. Hänggi (Germany), R.J. Haug (Germany)

14h45 Sub-7 nm Monolayer InSe Transistors: Performance Upper Limit and Electrical Contacts
   Y. Wang (China), B. Shi (China), J. Lu (China)

15h30-17h00 PARALLEL SESSIONS

15h30 Room Antigone 1
   Quantum transport in heterostructures - 1
   Topic: Quantum transport in heterostructures
   Moderators: T. Ihn (Switzerland)

   15h30 Invited - High mobility 2DEG in magnetic semiconductor structures: fundamentals and applications
   T. Wojtowicz (Poland)

   16h00 Critical role of chiral edge states in dynamic nuclear polarization
   K. Yang (China), K. Nagase (Japan), Y. Hirayama (Japan), T. Mishima (USA), M. Santos (USA), H. Liu (China)

   16h15 Spatially resolved bubble and stripe many-body phases in the integer quantum Hall effect regime
   J. Oswald (Austria), R.A. Römer (UK)

   16h30 The nature of current flow in bubble and stripe phases
   B. Friess (Germany), V. Umansky (Israel), K. von Klitzing (Germany), J. Smet (Germany)

   16h45 Neutral Modes in the Fractional Quantum Hall regime
   P. Rouleau (France), M. Kapfer (France), C. Giattli (France)

16h45 Room Rondelet
   Carbon-based nanostructures - 1
   Topic: Carbon-based nanostructures
   Moderators: P. Hawrylak (Canada), S. Nanot (France)

13h30 Carbon nanotubes as excitonic insulators
   M. Rontani (Italy), D. Varsano (Italy), S. Sorella (Italy), D. Sangalli (Italy), M. Barborini (Italy), S. Corni (Italy), E. Molinari (Italy)

13h45 Rotation effect in endohedral metallofullerene Ce@C82 single-molecule transistors
   C.C. Tang (Japan), S. Du (Japan), K. Yoshida (Japan), Y. Zhang (Japan), K. Hirakawa (Japan)

14h00 Invited - Wafer-Scale Crystalline Carbon Nanotubes: Physics and Applications
   J. Kono (USA)

14h30 Terahertz radiation induced chiral edge photogalvanic current in graphene in the quantum Hall regime
   S. Candussio (Germany), H. Plank (Germany), M. Durnev (Russia), J. Perrul (Germany), K.M. Dantscher (Germany), E. Mönch (Germany), A. Sandner (Germany), J. Eroms (Germany), D. Weiss (Germany), S. Tarasenko (Russia), S. Ganichev (Germany)

14h45 Room-temperature single-photon emission from graphene quantum dots
   S. Zhao (France), J. Lovie (France), L. Orcin-Chaix (France), S. Campidelli (France), L. Rondin (France), J.S. Lauret (France)

15h30 Quantum capacitance measurements in BiSbTeSe2 3D topological insulators
   J. Wang (Germany), Z. Wang (Germany), Y. Ando (Germany), C. Gorini (Germany), K. Richter (Germany), D. Weiss (Germany)
**Room Berlioz**

**2D materials and Van der Waals heterostructures - 2**

**Topic:** 2D materials and Van der Waals heterostructures  
**Moderators:** F. Cadiz (France), M. Semina (Russia)

**15h30**  
**Subnanometric vertical plasmon confinement in encapsulated graphene**  
S. Nanot (France), D. Alcaraz Iranzo (Spain), E.J.C. Dias (Portugal), I. Epstein (Spain), C. Feng (USA), D.K. Efetov (Spain), M.B. Lundeberg (Spain), R. Parret (Spain), J. Osmond (Spain), J.Y. Hong (USA), J. Kong (USA), D.R. Englund (USA), G. Bastard (France)

**15h45**  
**Fluorescence and Raman enhancement and strain-induced single-photon emitters in a monolayer semiconductor coupled to dielectric nanoantennas**  
L. Sortino (UK), P.G. Zotev (UK), R.C. Schofield (UK), J. Cambiasso (UK), S. Mignuzzi (UK), S.A. Maier (UK), R. Sapienza (UK), A.I. Tartakovskii (UK)

**16h00**  
**Fractal Evolution of Electron Energy Spectrum of Graphene on Patterned Dielectric Superlattices**  
P. Moon (China), C. Forsythe (USA), X. Zhou (China), T. Taniguchi (Japan), K. Watanabe (Japan), A. Pasupathy (USA), M. Koshino (Japan), P. Kim (USA), C. Dean (USA)

**16h15**  
**Patterned Dielectric Superlattices on van der Waals 2D Materials**  
P. Forsythe (USA), X. Zhou (China), T. Taniguchi (Japan), K. Watanabe (Japan), A. Pasupathy (USA), P. Moon (China), M. Koshino (Japan), P. Kim (USA), C. Dean (USA)

**16h30**  
**Invited** - Autonomous robotic searching and assembly of two-dimensional crystals to build van der Waals superlattices  
S. Masubuchi (Japan), M. Morimoto (Japan), S. Morikawa (Japan), M. Onodera (Japan), Y. Asakawa (Japan), K. Watanabe (Japan), T. Taniguchi (Japan), T. Machida (Japan)

**17h00**  
**Invited** - Two-dimensional materials and hetero-structures for new topological phases and tailored electronic structures  
S. Zhou (China)
Room Joffre 1
Quantum optics and nanophotonics - 1

Topic: Quantum optics and nanophotonics
Moderators: C. Schneider (Germany), E. Pelucchi (Ireland)

15h30
Spatially selective hydrogen irradiation of dilute nitrides: a versatile nanofabrication tool for photonic applications
M. Felici (Italy), G. Pettinari (Italy), F. Biccarri (Italy), S. Younis (Italy), M.S. Sharma (Italy), S. Rubini (Italy), M. Hopkinson (UK), A. Gerardin (Italy), M. Gurioli (Italy), A. Polimeni (Italy)

15h45
A unique tuneable, scalable and easily integrable source of quantum light based on pyramidal quantum dots
S. Morani (Ireland), G. Juska (Ireland), S. Varo (Ireland), T.H. Chung (China), A. Gocollinska (Ireland), R. Trotta (Austria), J. Martin-Sánchez (Spain), H. Huang (Austria), A. Rastelli (Austria), E. Pelucchi (Ireland)

16h00
Trion tunneling blockade and single-photon emission in GaAs double quantum well structures
M. Yuan (Germany), A. Hernández-Mínguez (Germany), K. Biermann (Germany), P. Santos (Germany)

16h15
Polarization properties of strain-induced single-photon emitters in atomically thin semiconductors
J.P. So (South Korea), J.M. Lee (South Korea), S.J. Lee (South Korea), J.H. Choi (South Korea), J.S. Park (South Korea), H.C. Lee (South Korea), K.Y. Jeong (South Korea), H.G. Park (South Korea)

16h30
Invited - Accessing the dark exciton spin qubit in deterministic quantum-dot microlenses
T. Heindel (Germany), A. Thoma (Germany), I. Schwartz (Israel), E.R. Schmidgall (Israel), L. Gantz (Israel), D. Cogan (Israel), M. Strauβ (Germany), P. Schnaüfer (Germany), M. Geschrey (Germany), J.H. Schulze (Germany), A. Stitzmann (Germany), S. Rodt (Germany), D. Gershoni (Israel), S. Reitzenstein (Germany)

Room Rondelet
Semiconductors for MIR and THz - 1

Topic: Semiconductors for MIR and THz
Moderators: J. Kono (USA), R. Teissier (France)

15h30
Investigation of semiconductors using modified double-pump-pulse terahertz emission method
I. Beleckaitė (Lithuania), L. Burakauskas (Lithuania), A. Domovickij (Lithuania)

15h45
Microwave induced magnetoresistance oscillations under bi-chromatic photo-excitation in the GaAs/AlGaAs 2D electron system
B. Gunawardana (USA), R.L. Munasinghe (USA), R.L. Samarakoon (USA), T.R. Nanayakkara (USA), A. Krisa (USA), U.K. Wijewardhana (USA), C. Reichl (Switzerland), W. Wegscheider (Switzerland), R.G. Mani (USA)

16h00
Invited - Giant enhancement in thermomechanical terahertz detection sensitivity of GaAs MEMS resonators through coherent internal mode coupling
K. Hirakawa (Japan), Y. Zhang (Japan), B. Qiu (Japan), N. Nagai (Japan)

16h30
Giant terahertz photoconductance of tunneling point contacts
S. Ganichev (Germany), M. Otteneer (Germany), O. Tkachenko (Russia), V. Tkachenko (Russia), A.S. Jaroshchuk (Russia), E.E. Rodyakina (Russia), A.V. Latyshev (Russia), Z.D. Kvon (Russia)

16h45
Electron dephasing in the ultra-high mobility GaAs/AlGaAs 2DES due to a radiation-induced electron-heating-effect
R. Samarakoon (USA), B. Gunawardana (USA), A. Krisa (USA), T. Nanayakkara (USA), R. Munasinghe (USA), C. Reichl (Switzerland), W. Wegscheider (Switzerland), R. Mani (USA)
08h30-10h00 PARALLEL SESSIONS

> Room Antigone 1
Quantum transport in heterostructures - 2

Topic: Quantum transport in heterostructures
Moderators: T. Wojtowicz (Poland), B. Jouault (France)

08h30 A programmable two-qubit quantum processor in silicon
S. Philips (Netherlands)

08h45 Coupling of a terahertz-cavity to a carbon nanotube quantum dot
F. Valmorra (France), K. Yoshida (Japan), L. Contamin (France), T. Cubaynes (France),
M. Dartiailh (France), M. Desjardins (France), S. Massabeau (France), K. Hirakawa (Japan),
J. Mangeney (France), A. Cottet (France), T. Kontos (France)

09h00 Ballistic electrons splashing down in a Fermi sea
R.H. Rodriguez (France), F.D. Parmentier (France), P. Rouilleau (France), U. Gennser (France),
A. Cavanna (France), F. Porter (France), D. Mailly (France), P. Roche (France)

09h15 Magneto-transport of 2DEGs ultrastongly coupled to vacuum fields - probed by weak microwave irradiation
G.L. Paravicini-Bagliani (Switzerland), F. Appugliese (Switzerland), E. Richter (Switzerland),
F. Valmorra (Switzerland), J. Keller (Switzerland), M. Beck (Switzerland), G. Scalari (Switzerland),
J. Faist (Switzerland)

09h30 Invited - Mesoscopic Quantum Electrodynamics: from atomic-like physics to condensed matter
A. Cottet (France)

> Room Barthez
Devices and applications - 2

Topic: Devices and applications
Moderators: H.G. Park (South Korea), B. Damilano (France)

08h30 Electrically driven, phosphor-free, highly efficient warm white light-emitting diodes using GaN-based three-dimensional dodecagonal ring structure
Y.C. Sim (South Korea), S. Choi (South Korea), H.S. Yeo (South Korea), K.Y. Woo (South Korea),
S. Lee (South Korea), H.G. Song (South Korea), Y.H. Cho (South Korea)

08h45 AlxGa1-xN nanowire LED heterostructures: the intrinsic effect of radial doping inhomogeneity
A.M. Siladie (France), F. Donatini (France), G. Jacopin (France), L. Amichi (France), C. Bougerol (France),
E. Robin (France), N. Garro (Spain), A. Cros (Spain), J. Pernot (France), B. Daudin (France)

09h00 Invited - What is red? On the chromaticity of orange-red InGaN/GaN based LEDs
Y. Robin (Japan), M. Pristovsek (Japan), H. Amano (Japan)
09h30  InAs/AlSb Universal Memory Cells  
M. Hayne (UK), O. Tixno (UK), D. Lane (UK), A. Marshall (UK)

09h45  Giant, trap-mediated piezoresponse in fully-depleted silicon-on-insulator  
A. Rowe (France), H. Li (France), C. Lew (Australia), B. Johnson (Australia), J. McCallum (Australia), S. Arscott (France)

Room Einstein

2D materials and Van der Waals heterostructures - 3

Topic: 2D materials and Van der Waals heterostructures  
Moderators: S. Masubuchi (Japan), P. Rouleau (France)

08h30  Transport through a network of topological states in twisted bilayer graphene  
P. Rickhaus (Switzerland), J. Wallbank (UK), S. Silzovsky (UK), R. Pisoni (Switzerland), H. Overweg (Switzerland), M. Eich (Switzerland), Y. Lee (Switzerland), M.H. Liu (Taiwan), V. Falko (UK), I. Thomas (Switzerland), K. Ensslin (Switzerland)

08h45  Observation of crossover from a complex stripe phase to a helical phase in multiple one-atomic-layer films  
R. Masutomi (Japan), S. Tashiro (Japan), T. Okamoto (Japan), Y. Yanase (Japan)

09h00  Invited - Giant quantum Hall plateau in graphene coupled to an InSe van der Waals crystal  
Z. Kudrynskyi (UK), M. Bhuiyan (UK), O. Makarovsky (UK), J. Greener (UK), E. Vdovin (Russia), Z. Kovalyuk (Ukraine), Y. Cao (UK), A. Mishchenko (UK), K. Novoselov (UK), P. Beton (UK), L. Eaves (UK), A. Patane (UK)

09h30  Van Hove singularity probed by supercurrent measurement in a graphene-hBN superlattice  
R. Delagrange (Switzerland), D.I. Indolese (Switzerland), P. Makk (Hungary), C. Schönenberger (Switzerland)

09h45  Large magnetoresistance by Pauli blockade in hydrogenated graphene  
N. Hemsworth (Canada), T. Szkopek (Canada), J. Guillemette (Canada), A. Vlasov (Canada), J. Kirman (Canada), F. Mahvash (Canada), P. Lévesque (Canada), M. Siaj (Canada), R. Martel (Canada), G. Gervais (Canada), S. Studenikin (Canada), A. Sachrajda (Canada)

Room Joffre

Quantum optics and nanophotonics - 2

Topic: Quantum optics and nanophotonics  
Moderators: T. Heindel (Germany), C.M. Sotomayor Torres (Spain)

08h30  Invited - Advanced Quantum Dot Light Sources for Quantum Sensing  
P. Michler (Germany)

09h00  Overcoming phonon-induced decoherence in single-photon sources with cavity quantum electrodynamics  
G. Coppola (France), T. Grange (France), N. Somaschi (France), C. Antón (France), L. de Santis (France), V. Giesz (France), A. Lemaître (France), I. Sagnes (France), P. Auffèves (France), P. Senellart (France)

09h15  Coherent sideband manipulation of a single spin in a self-assembled quantum dot  
J. Bodey (UK), R. Stockill (UK), C. Le Gall (UK), L. Huthmacher (UK), G. Ethier-Majcher (UK), D. Gangloff (UK), M. Atature (UK)

09h30  Local Density-of-States Mapping in Photonic Crystal Resonators by Deterministically Positioned Germanium Quantum Dots  
F. Schöffer (Austria), M. Schatzl (Austria), F. Hackl (Austria), M. Glaser (Austria), P. Rauter (Austria), M. Brehm (Austria), L. Spindlberger (Austria), T. Fromherz (Austria)

09h45  Using fractional quantum Hall states to increase polariton-polariton interactions  
S. Ravets (France), P. Knüppel (Switzerland), S. Faelt (Switzerland), M. Kroner (Switzerland), W. Wegscheider (Switzerland), A. Imamoglu (Switzerland)

Room Rondelet

Perovskites and organic semiconductors - 2

Topic: Perovskites and organic semiconductors  
Moderators: C. Diederichs (Singapore), D. Yakovlev (Germany)

08h30  Bright exciton fine structure splitting in bulk MAPbBr3 crystal  
P. Plochocka (France), M. Baranowski (France), G. Krzysztof (France), A. Surrente (France), J. Urban (France), S. Klopotowski (Poland), S. Mackowski (Poland), D. Maude (France), P. Nayak (UK), M. Dollmann (UK), H. Snaith (UK), R. Nicholas (UK)
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>08h45</td>
<td>Exciton-phonon interaction in a single CsPbBr3 nanocrystal</td>
<td>T. Barisien (France), J. Ramade (France), L.M. Andriambianjona (France), V. Steinmetz (France), L. Legrand (France), N. Goubet (France), F. Bernardot (France), C. Testelin (France), E. Lhuillier (France), A. Bramati (France), M. Chamorro (France)</td>
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<tr>
<td>09h00</td>
<td>Strong Carrier-Phonon Coupling in Lead Halide Perovskite Nanocrystals</td>
<td>C.M. Iaru (Netherlands), J.J. Geuchies (Netherlands), S. Buhut-Sinai (Netherlands), N. Van Hoof (Netherlands), S. Ter Huurne (Netherlands), J. Gomez-Rivas (Netherlands), P.M. Koenraad (Netherlands), D. Vanmaekelbergh (Netherlands), A.Y. Silov (Netherlands)</td>
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<tr>
<td>09h15</td>
<td>Optical properties of lead-free bismuth halide perovskites</td>
<td>S. Rieger (Germany), B. Bohn (Germany), L. Leppert (Germany), M. Döbling (Germany), K. Wang (Germany), P. Müller-Buschbaum (Germany), J. Stolarczyk (Germany), L. Polavarapu (Germany), J. Feldmann (Germany)</td>
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<tr>
<td>09h30</td>
<td>Invited - Physics of multilayered halide perovskite semiconductors</td>
<td>J. Even (France)</td>
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<tr>
<td>10h30</td>
<td>Competing charge density waves probed by non-linear transport and noise in the second and third Landau levels</td>
<td>K. Bennaceur (India), C. Lupien (Canada), B. Reulet (Canada), G. Gervois (Canada), L. Pfeiffer (USA), K. West (USA)</td>
</tr>
<tr>
<td>10h45</td>
<td>Spatial and spectral resolution of electronic states from noise measurements</td>
<td>E. Tikhonov (Russia), A. Denisov (Russia), S. Piatrusha (Russia), V. Khrapai (Russia)</td>
</tr>
<tr>
<td>11h00</td>
<td>Invited - Unveiling the bosonic nature in an ultra-short single-electron pulse</td>
<td>C. Bauerle (France), G. Roussely (France), G. Arrighi (France), G. Georgiou (France), S. Tokada (France), M. Scholz (France), M. Urdampilleta (France), A. Ludwig (France), A. D. Wieck (France), P. Armagnat (France), T. Kloss (France), X. Waintal (France), T. Meunier (France)</td>
</tr>
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</table>
10h30 GaN nanowires grown on graphene substrates  
M. Tchernycheva (France), M. Morassi (France), N. Guan (France), L. Mancini (France), C. Barbier (France), V. Kumaoren (France), A. Madouri (France), F. Glas (France), F. Oehler (France), A. Cavanno (France), F.H. Julien (France), A. Babichev (France), N. Gagneau (France), L. Largue (France), J.C. Harmand (France)

10h45 Catalyst-free GaN nanowire growth mechanism and control of morphology by molecular beam epitaxy  
M. Gruart (France), B. Gayral (France), B. Daudin (France)

11h00 Invited - Helium ion microscopy as a novel high-resolution probe for complex quantum heterostructures in core-shell nanowires  
G. Koblmüller (Germany), C. Pöpsel (Germany), J. Becker (Germany), N. Jean (USA), M. Döblinger (Germany), T. Stettner (Germany), Y. Trujillo-Gottschalk (Germany), B. Loitsch (Germany), S. Match (Germany), M. Altszchner (Germany), A.W. Holleitner (Germany), J.J. Finley (Germany), L.J. Lauhon (USA)

11h30 Exciton Photoluminescence and Benign Defect Complex Formation in Zinc Tin Nitride  
A.N. Fioretti (Switzerland), J. Pan (USA), B.R. Ortiz (USA), C.L. Melamed (USA), P.C. Dippo (USA), L.T. Schelhais (USA), D. Kuciauskas (USA), S. Lany (USA), A. Zakutayev (USA), E.S. Toberer (USA), A.C. Tamboli (USA)

10h30 GaAs-(In, Al)GaAs core-shell Nanowire Lasers Integrated onto Silicon Waveguides  
T. Stettner (Germany), J. Bissinger (Germany), D. Ruhstorfer (Germany), T. Kostenbader (Germany), E. Yoon (South Korea)

10h45 Optical and electronic properties of elongated nanowire quantum dots  
K. Moraitis (France), M. Orrù (France), E. Bellet-Amalric (France), E. Robin (France), G. Nogues (France), F. Donatini (France), R. André (France), Y.M. Niquet (France), J. Cibert (France), D. Ferrand (France)

11h00 Light hole excitons in (Cd,Mn)Te/(Cd,Mg)Te core/shell nanowires  
P. Wojnar (Poland), J. Plachta (Poland), G. Emma (Poland), A. Kaleta (Poland), S. Kret (Poland), T. Kazimierczuk (Poland), P. Kossacki (Poland), L. Baczewski (Poland), P. Alexei (Poland), G. Karczewski (Poland), T. Wojtowicz (Poland)

11h15 Light emission from direct bandgap Silicon-Germanium  
A. Dijkstra (Netherlands), Y. Ren (Netherlands), E. Fadaly (Netherlands), M. Verheijen (Netherlands), L. Gagliano (Netherlands), S. Koelling (Netherlands), J. Haverkort (Netherlands), E. Bakkers (Netherlands)
11h30

Invited - A Silicon laser from Ge quantum dots containing defect-induced recombination centers
M. Brehm (Austria), L. Spindlberger (Austria), M. Grydlik (Austria), P. Rauter (Austria), T. Fromherz (Austria), S. Friedrich (Austria)

Room Rondelet

Point defects and artificial atoms - 1

Moderators: V. Jacques (France), M. Thewalt (Canada)

10h30

Invited - Holonomic quantum control of geometric spin qubits in an NV center in diamond
H. Kosaka (Japan)

11h00

Holonomic control of the state of an electron spin of a defect center in diamond
V. Shkolnikov (Germany), B.B. Zhou (USA), P.C. Jerger (USA), F.J. Heremans (USA), G. Burkard (Germany), D.D. Awschalom (USA)

11h15

Nanomechanical characterization of the Kondo charge dynamics in a carbon nanotube
A.K. Hüttel (Germany), K.J.G. Götz (Germany), D.R. Schmid (Germany), F.J. Schupp (Germany), P.L. Stiller (Germany), C. Strunk (Germany)

11h30

Single rare-earth ions as atomic-scale probes in ultra-scaled transistors
C. Yin (Australia), Q. Zhang (China), G. Hu (Australia), G. de Boo (Australia), M. Rancic (Australia), B. Johnson (Australia), J. McCallum (Australia), J. Du (China), M. Sellars (Australia), S. Rogge (Australia)

11h45

Further investigation of the deep double donor magnesium in silicon
R. Abraham (Canada), A. Deabreu (Canada), K. Morse (Canada), V. Shuman (Russia), L. Portsel (Russia), A. Lodygin (Russia), Y. Astrov (Russia), N. Abrosimov (Germany), S. Pavlov (Germany), H.W. Hübers (Germany), S. Simmons (Canada), M. Thewalt (Canada)

13h30-15h00

PARALLEL SESSIONS

Room Antigone 1

Quantum transport in heterostructures - 4

Moderators: C. Bauerle (France), G. Gervais (Canada)

13h30

Tomonaga-Luttinger liquid behaviour in 1D electron system fabricated from InAs Quantum well holding strong spin-orbit interaction
Y. Sato (Japan), S. Matsuo (Japan), C.H. Hsu (Japan), P. Stano (Japan), D. Loss (Japan), K. Ueda (Japan), Y. Takesige (Japan), H. Kamata (Japan), J.S. Lee (USA), B. Shojaei (USA), J. Shabani (USA), C. Parmstrøm (USA), Y. Tokura (Japan), S. Tarucha (Japan)

13h45

Quantum Transport in Epitaxial NbN/GaN Superconductor/Semiconductor Heterostructures
M. Lee (USA), G. Khalsa (USA), S. Katzer (USA), N. Nepal (USA), B. Downey (USA), B. Ramshaw (USA), G. Xing (USA), D. Meyer (USA), D. Jena (USA)

14h00

Invited - Discovery of chiral Majorana fermion in magnetic topological insulators
J. Wang (China)

14h30

Minimal Excitations in the Fractional Quantum Hall Regime
J. Rech (France), D. Ferraro (Italy), T. Jonckheere (France), L. Vannucci (Italy), M. Sassetti (Italy), T. Martin (France)

14h45

Negative excess shot noise by anyon braiding
B. Lee (South Korea), C. Hian (South Korea), H.S. Sim (South Korea)

Room Antigone 3

Spintronics and spin phenomena - 3

Moderators: T. Jungwirth (Czech Republic), S. Cronenberger (France)

13h30

Invited - Diamond sensing of the phase transition of a single magnetic nanoparticle and criticality-enhanced nano-thermometry
R.B. Liu (China)
**Room Einstein**

**2D materials and Van der Waals heterostructures - 5**

**Topic:** 2D materials and Van der Waals heterostructures  
**Moderators:** R. Cusco (Spain), A. Rowe (France)  

**13h30**  
**Invited - Binding energies, oscillator strengths and structure of excitons and trions in transition metal dichalcogenides monolayer**  
M. Semina (Russia), M. Glazov (Russia)  

**13h45**  
**In-situ control of layer orientations in graphene/BN heterostructures**  
C. Zhang (USA), R. Ribeiro-Palau (USA), K. Watanabe (Japan), T. Taniguchi (Japan)  

**14h00**  
**Invited - Exciton diffusion in transition metal dichalcogenide monolayers embedded in a van der Waals heterostructure**  
F. Cadiz (France), C. Robert (France), E. Courtrade (France), M. Manco (France), L. Martini (France), T. Taniguchi (Japan), K. Watanabe (Japan), T. Amand (France), A. Rowe (France), D. Paget (France), B. Urbaszek (France), X. Marie (France)  

**14h15**  
**Invited - Exciton diffusion in transition metal dichalcogenide monolayers embedded in a van der Waals heterostructure**  
F. Cadiz (France), C. Robert (France), E. Courtrade (France), M. Manco (France), L. Martini (France), T. Taniguchi (Japan), K. Watanabe (Japan), T. Amand (France), A. Rowe (France), D. Paget (France), B. Urbaszek (France), X. Marie (France)  

**14h30**  
**Invited - Momentum-Resolved View of Ultrafast Dynamics of Electrons, Excitons and Phonons in Layered Semiconductors**  
**13h30-15h00 PARALLEL SESSIONS**

**Room Joffre 1**

**Quantum optics and nanophotonics - 3**

**Topic:** Quantum optics and nanophotonics  
**Moderators:** L. Vina (Spain), H.S. Nguyen (France)

**13h30**  
Chiral effects in nanophotonic waveguides with embedded InGaAs quantum dots  
M. Makhonin (UK), D. Hurst (UK), C. Bentham (UK), D. Price (UK), B. Royall (UK), E. Clarke (UK),  
P. Kok (UK), M. Fox (UK), M. Skolnick (UK)

**13h45**  
Tomography of the optical polarization rotation induced by a single quantum dot in a cavity  
P. Hilaire (France), C. Anton (France), C. Millet (France), A. Harouri (France), A. Lemaitre (France),  
I. Sagnes (France), O. Krebs (France), N.D. Lanzilotti-Kimura (France), N. Somaschi (France),  
P. Sénéllart (France), L. Lanco (France)

**14h00**  
All-optical mapping of the position of single quantum dots embedded in a nanowire antenna  
R. Fons (France), A. D. Osterkryger (Denmark), P. Stepanov (France), E. Gautier (France), J. Bleuse (France),  
J.M. Gerard (France), N. Gregersen (Denmark), J. Claudon (France)

**14h15**  
Static strain tuning of quantum dots embedded in a photonic wire  
N. Vaish (France), D. Tumanov (France), H.A. Nguyen (France), Y. Cürey (France), J.M. Gérard (France),  
J. Claudon (France), F. Donatini (France), J.P. Poizat (France)

**14h30**  
Invited - Strong photon bunching and transmission extinction using a single quantum dot coupled to a single-mode nano-photonic waveguide  
A. Foster (UK), D. Hallett (UK), B. Royall (UK), P. Kok (UK), E. Clarke (UK), I. Itskevich (UK),  
M. Fox (UK), M. Skolnick (UK), L. Wilson (UK)

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**Room Rondelet**

**Semiconductors for MIR and THz - 2**

**Topic:** Semiconductors for MIR and THz  
**Moderators:** K. Hirakawa (Japan), B. Murdin (UK)

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**13h30**  
Room temperature continuous wave operation of InAs/AlSb-based distributed feedback quantum cascade lasers at $\lambda = 11\ \mu\text{m}$  
Z. Laghmari (France), M. Bahriz (France), D. Diaz Thomas (France), A. Meguekam (France),  
H. Nguyen (France), R. Teissier (France), A. Baranov (France)

**13h45**  
Mid-Infrared Frequency Comb based on Actively Modelocked Interband Cascade Laser  
J. Hillbrand (Austria), M. Beiser (Austria), A. Schade (Germany), H. Detz (Austria), A.M. Andrews (Austria),  
G. Strasser (Austria), S. Höfling (Germany), B. Schwarz (Austria)

**14h00**  
Invited - Symmetric and asymmetric superlattice quantum well infrared photodetectors  
P. Lustoza de Souza (Brazil)

**14h30**  
Advanced doping of Ge and GeSn  
S. Prucnal (Germany), Y. Berencen (Germany), M. Wang (Germany), R. Huebner (Germany),  
R. Boettger (Germany), L. Rebohle (Germany), W. Skorupa (Germany), M. Helm (Germany),  
S. Zhou (Germany)

**14h45**  
Lasing in GeSn alloy at high concentration of Sn  
Q. M. Thai (France), M. Bertrand (France), N. Pouc (France), J. Chretien (France), J. Aubin (France),  
R. Khazaka (France), J. Rothman (France), T. Zabel (Suisse), F. Armand Pilon (Suisse), H. Sigg (Suisse),  
A. Cheinokov (France), J.M. Hartmann (France), V. Reboud (France), V. Calvo (France)

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**15h30-17h00 PARALLEL SESSIONS**

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**Room Antigone 1**

**Quantum transport in heterostructures - 5**

**Topic:** Quantum transport in heterostructures  
**Moderators:** E. Sivre (France), K. Bennaceur (India)

**15h30**  
Evidence of the melting of a Wigner crystal  
J. Huang (USA), T. Knighton (USA), Z. Wu (USA), A. Serafin (USA), J. Xia (USA), L. Pfeiffer (USA),  
K. West (USA)

**15h45**  
Experimental and theoretical study of the Hall effect in hopping transport  
N. Stepina (Russia), A. Shumilin (Russia), A. Dvorechenskii (Russia)
16h00

**Invited** - Locally Probing Viscous Electron Transport
B.A. Braem (Switzerland), C. Gold (Switzerland), M. Röösli (Switzerland), M. Berl (Switzerland), W. Wegscheider (Switzerland), T. Ihn (Switzerland), K. Ensslin (Switzerland)

16h30

Zero Landau Level in HgTe Dirac Fermions System
D. Kozlov (Russia), J. Ziegler (Russia), Z.D. Kvon (Russia), D. Weiss (Germany), N. Mikhailov (Russia), S. Dvoretsky (Russia)

16h45

Experimental studies of the thermoelectric effect in Kondo-correlated quantum dots
A. Svilans (Sweden), M. Josefsson (Sweden), A. Burke (Sweden), S. Fahlvik (Sweden), C. Thelander (Sweden), H. Linke (Sweden), M. Leijnse (Sweden)

**Room Barthez**

**Growth and characterization - 3**

**Topic:** Growth and characterization  
**Moderators:** C.B. Maliakkal (Sweden), A. Fioretti (Switzerland)

15h30

Growth mechanism of polymorphism of asymmetric Sigma-9{115}/{111} interfaces in silicon
Y. Ohno (Japan), T. Yokoi (Japan), A. Nakamura (Japan), K. Matsunaga (Japan), H. Yoshida (Japan), S. Takeda (Japan), Y. Shimizu (Japan), Y. Nagai (Japan)

15h45

III-V/Si heterogeneous growth: thermodynamics and antiphase domains formation
I. Lucci (France), S. Charbonnier (France), L. Pedesseau (France), M. Vallet (France), L. Cerutti (France), J.B. Rodriguez (France), E. Tournie (France), R. Gautheron-Bernard (France), A. Letoublon (France), N. Bertru (France), A. Le Corre (France), R. Stéphanie (France), F. Semond (France), G. Patriarche (France), L. Largeau (France), A. Ponchet (France), P. Turban (France), C. Cornet (France)

16h00

**Invited** - Green/Yellow/Red emission from m-plane core-shell InGaN/GaN nanowires
A. Kapoor (France), N. Guan (France), L. Mancini (France), C. Bougerol (France), F. Julien (France), J.P. Barnes (France), M. Tchernycheva (France), C. Durand (France), J. Eymery (France)

16h30

Efficient green emission from wurtzite AlInP nanowires
L. Gagliano (Netherlands), M. Kruijssen (Netherlands), J. Schefold (Netherlands), A. Belabbes (Germany), M. Verheijen (Netherlands), S. Meuret (Netherlands), S. Koelling (Netherlands), A. Polman (Netherlands), F. Bechstedt (Germany), J. Haverkort (Netherlands), E. Bakkers (Netherlands)

16h45

Remarkable linewidth improvements for well-known radiation damage luminescence centers in highly enriched 28Si
C. Chartrand (Canada), L. Bergeron (Canada), K. Morse (Canada), H. Riemann (Germany), N. Abrosimov (Germany), P. Becker (Germany), H.J. Pohl (Germany), S. Simmons (Canada), M. Thewalt (Canada)

17h00

Gate-defined bilayer graphene quantum dots
M. Eich (Switzerland), F. Herman (Switzerland), R. Pisoni (Switzerland), H. Overweg (Switzerland), A. Kurzmann (Switzerland), Y. Lee (Switzerland), P. Richhaus (Switzerland), K. Watanabe (Japan), T. Taniguchi (Japan), M. Sigrist (Switzerland), T. Ihn (Switzerland), K. Ensslin (Switzerland)

17h15

Charge-tunable quantum dots in monolayer WSe2
M. Brotons-Gibsbert (UK), A. Branny (UK), K. Santosh (UK), R. Picard (UK), R. Proux (UK), B. Gerardot (UK)

**Room Antigone 3**

**Late News - 1**

**Moderators:** M. Abbarchi (France)

15h30

**Invited** - When shall we have a quantum computer?
M. Dyakonov (France)

16h00

Physics of heat transfer with a nonequilibrium quantum fluid of polaritons
P. Stepanov (France), S. Klembt (Germany), T. Klein (Germany), A. Minguzzi (France), M. Richard (France)

16h15

Optical orientation and alignment of excitons in nanocrystals of inorganic perovskites
M. Nestoklon (Russia), S. Goupalov (Russia), R. Dzhioev (Russia), O. Ken (Russia), V. Korenev (Russia), Y. Kusrayev (Russia), V. Sapega (Russia), C. de Weerd (Netherlands), L. Gomez (Netherlands), T. Gregorkiewicz (Netherlands), J. Lin (Japan), K. Suenaga (Japan), Y. Fujwara (Japan), L. Matyushkin (Russia), I. Yassievich (Russia)

16h30

Tailoring band diagram of Tamm plasmons in photonic crystal structures
H.S. Nguyen (France), L. Ferrier (France), C. Jamois (France), L. Berguiga (France), C. Symonds (France), J. Bellessa (France), T. Benyattou (France)

16h45

Remarkable linewidth improvements for well-known radiation damage luminescence centers in highly enriched 28Si
C. Chartrand (Canada), L. Bergeron (Canada), K. Morse (Canada), H. Riemann (Germany), N. Abrosimov (Germany), P. Becker (Germany), H.J. Pohl (Germany), S. Simmons (Canada), M. Thewalt (Canada)

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M. Brotons-Gibsbert (UK), A. Branny (UK), K. Santosh (UK), R. Picard (UK), R. Proux (UK), B. Gerardot (UK)

**Room Barthez**

**Growth and characterization - 3**

**Topic:** Growth and characterization  
**Moderators:** C.B. Maliakkal (Sweden), A. Fioretti (Switzerland)

15h30

Growth mechanism of polymorphism of asymmetric Sigma-9{115}/{111} interfaces in silicon
Y. Ohno (Japan), T. Yokoi (Japan), A. Nakamura (Japan), K. Matsunaga (Japan), H. Yoshida (Japan), S. Takeda (Japan), Y. Shimizu (Japan), Y. Nagai (Japan)

15h45

III-V/Si heterogeneous growth: thermodynamics and antiphase domains formation
I. Lucci (France), S. Charbonnier (France), L. Pedesseau (France), M. Vallet (France), L. Cerutti (France), J.B. Rodriguez (France), E. Tournie (France), R. Gautheron-Bernard (France), A. Letoublon (France), N. Bertru (France), A. Le Corre (France), R. Stéphanie (France), F. Semond (France), G. Patriarche (France), L. Largeau (France), A. Ponchet (France), P. Turban (France), C. Cornet (France)

16h00

**Invited** - Green/Yellow/Red emission from m-plane core-shell InGaN/GaN nanowires
A. Kapoor (France), N. Guan (France), L. Mancini (France), C. Bougerol (France), F. Julien (France), J.P. Barnes (France), M. Tchernycheva (France), C. Durand (France), J. Eymery (France)

16h30

Efficient green emission from wurtzite AlInP nanowires
L. Gagliano (Netherlands), M. Kruijssen (Netherlands), J. Schefold (Netherlands), A. Belabbes (Germany), M. Verheijen (Netherlands), S. Meuret (Netherlands), S. Koelling (Netherlands), A. Polman (Netherlands), F. Bechstedt (Germany), J. Haverkort (Netherlands), E. Bakkers (Netherlands)

16h45

Localization and transient emission properties in InGaN/GaN QWs of different polarity within core-shell nanorods
Y. Robin (Japan), E. Evropeitsev (Russia), T. Shubina (Russia), S.Y. Bae (South Korea), S. Nitta (Japan), M. Kushimoto (Japan), D. Kirilenko (Russia), V. Davydov (Russia), A. Smirnov (Russia), A. Toropov (Japan), S. Ivanov (Russia), H. Amano (Japan)
## Programme

### Room Einstein

**Wide bandgap - 3**

**Topic:** Wide bandgap  
**Moderators:** C. Sturm (Germany)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>15h30</td>
<td>Invited</td>
<td>Wide-band-gap nitrides for quantum information applications</td>
<td>C. Van de Walle (USA)</td>
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<tr>
<td>16h00</td>
<td>The Mg acceptor in GaN: the idea of the classical qubit</td>
<td>K. O'Donnell (UK), P. Edwards (UK), A. Singh (UK), K. Lorenz (Portugal), M. Kappers (UK), M. Bockowski (Poland)</td>
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<tr>
<td>16h15</td>
<td>Nature of oxide/III-N defects: Disorder induced gap state continuum vs. border traps</td>
<td>M. Matys (Japan), K. Nishiguchi (Japan), B. Adamowicz (Poland), T. Hashizume (Japan)</td>
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<tr>
<td>16h30</td>
<td>Nanometer-scale resolved cathodoluminescence of individual GaN / AlN quantum dots</td>
<td>J. Christen (Germany), H. Schuermann (Germany), F. Bertram (Germany), G. Schmidt (Germany), P. V et (Germany), J. Bloesing (Germany), A. Dadgar (Germany), A. Strittmatter (Germany)</td>
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### Room Joffre 1

**Topological insulators - 2**

**Topic:** Topological insulators  
**Moderators:** S. Bietti (Italy), M. Chamarro (France)

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>15h30</td>
<td>White-light 2D Coherent Spectroscopy Reveals Coherent Coupling and Crossed Excitons in InAs/InGaAs Nanostructures</td>
<td>U. Woggon (Germany), M. Kolarczik (Germany), K. Thommes (Germany), B. Herzog (Germany), S. Helmrich (Germany), N. Owscnikiow (Germany)</td>
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<tr>
<td>15h45</td>
<td>Investigation of optical couplings by dipole-dipole interaction in a single coupled quantum dot</td>
<td>H. Kim (China), K. Kyhm (South Korea), R. Taylor (England), J. Kim (South Korea), J. Song (South Korea)</td>
<td></td>
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<tr>
<td>16h00</td>
<td>Electron correlation in the optical telegraph noise of electron tunneling into a single quantum dot</td>
<td>A. Lorke (Germany), P. Stegmann (Germany), J. Kerski (Germany), A. Ludwig (Germany), A. Wieck (Germany), J. König (Germany), M. Geller (Germany), A. Kurzmann (Germany)</td>
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<tr>
<td>16h15</td>
<td>Room-temperature ballistic phonon transport in thin GaP nanowires</td>
<td>D. Vakulov (Netherlands), S. Greisen (Netherlands), M.Y. Swinkels (Switzerland), I. Zardo (Switzerland), R. Chavez (Netherlands), L. Gagliano (Netherlands), S. Assali (Netherlands), F.X. Alvarez (Catalonia, Spain), P.T. Alvarez (Catalonia, Spain), M.A. Verheijen (Netherlands), P.A. Bobbert (Netherlands), E.P. Bakkers (Netherlands)</td>
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<tr>
<td>16h30</td>
<td>Invited</td>
<td>Control of quantum dot laser emission by coherent phonon wave packets</td>
<td>D. Wigger (Germany), T. CzeriUK (Germany), D.E. Reiter (Germany), M. Bayer (Germany), T. Kuhn (Germany)</td>
</tr>
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</table>

### Room Rondelet

**Physics of nanocrystals and quantum dots - 1**

**Topic:** Physics of nanocrystals and quantum dots  
**Moderators:** S. Bietti (Italy), M. Chamarro (France)

<table>
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<th>Time</th>
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<tr>
<td>15h30</td>
<td>Topological nanophononic states in GaAlAs superlattice heterostructures</td>
<td>M. Esmann (France), F.R. Lamberti (France), O. Ortiz (France), P. Senellart (France), I. Favero (France), O. Krebs (France), L. Lanca (France), C. Gomez Carbonell (France), A. Lemaître (France), N.D. Lanzilotti-Kimura (France)</td>
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<tr>
<td>16h30</td>
<td>Why phase of magnetoeoscillations is not equal to Berry phase</td>
<td>A. Kurtsicevich (Russia), A. Shupletsov (Russia)</td>
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<tr>
<td>16h45</td>
<td>The algebraic geometric of photonic topological insulators</td>
<td>D. Felbacq (France)</td>
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**TUESDAY 31st July, 2018**
WEDNESDAY 01st August, 2018

INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS

08h30-10h00 Room Berlioz
PLENARY SESSION
Moderator: H. Xu (China)

08h30
Exotic topological phenomena in graphene and related materials
T. Ando (Japan)

09h15
Something new about graphene and two-dimensional materials
A. Geim (UK)

10h30-11h15 Room Berlioz
PLENARY SESSION
Moderator: U. Woggon (Germany)

10h30
Excitons in 2D Materials based on Transition Metal Dichalcogenides
X. Marie (France)

11h15-11h45 Room Berlioz
Women in Science
Moderators: E. Molinari (Italy), C.M. Sotomayor Torres (Spain), U. Woggon (Germany)
08h30-10h00
PARALLEL SESSIONS

> **Room Antigone 1**

**Wide bandgap - 4**

**Topic:** Wide bandgap  
**Moderators:** D. Jena (USA), J. Brault (France)

08h30  
Polariton lasing in a ZnO waveguide up to room temperature  
G. Kreyder (France), O. Jamadi (France), F. Reveret (France), F. Medard (France), P. Disseix (France), J. Leymarie (France), A. Moreau (France), D. Solnyshkov (France), G. Malpuech (France), E. Cambril (France), S. Bouchoule (France), C. Deparis (France), M. Leroux (France), J. Zuniga Perez (France)

08h45  
Systematic investigation of structural and intersubband optical properties of ZnO/ZnMgO quantum wells grown on m-plane ZnO substrates  
A. Jollivet (France), J. Filipovic (France), N. Isac (France), A. Bousseksou (France), F. Aniel (France), M. Tchernycheva (France), E. Di Russo (France), J. Houard (France), S. Moldovan (France), G. Da Costa (France), I. Blum (France), D. Blavette (France), L. Riguti (France), M. Montes Bajo (Spain), J. Tamayo-Arriola (Spain), A. Hierro (Spain), N. Le Biavari (France), H. Maxime (France), J. M. Chauveau (France), F. Julien (France)

09h00  
Invited - Resonant tunneling in III-nitride double barrier structures  
X. Wang (China), D. Wang (China), T. Wang (China), Z. Chen (China), J. Su (China), W. Tan (China), J. Zhang (China), B. Shen (China)

09h30  
Highly efficient luminescence emission from heavily doped AlxGa1-xN/AlN films under optical pumping  
K. Zhuravlev (Russia), P. Bokhan (Russia), N. Fateev (Russia), T. Malin (Russia), D. Zakrevsky (Russia)

09h45  
On the interpretation of spatially resolved photoluminescence from wide band gap nanowires  
B. Adamowicz (Poland), M. Matys (Japan)

> **Room Antigone 3**

**Spintronics and spin phenomena - 4**

**Topic:** Spintronics and spin phenomena  
**Moderators:** R.B. Liu (China), S. Simmons (Canada)

08h30  
Invited - Spin color centers in silicon carbide as a material platform for sensing, quantum photonics and information processing at ambient conditions  
P. Baranov (Russia), A. Anisimov (Russia), V. Solntsov (Russia), G. Astakhov (Germany), V. Dyakonov (Germany)

09h00  
Vanishing hyperfine interaction in hole spin qubits  
L. Gaudreau (Canada), A. Bogan (Canada), S. Studenikin (Canada), M. Korkusinski (Canada), G. Aers (Canada), P. Zawadzki (Canada), A. Sachrajda (Canada), L. Tracy (USA), J. Reno (USA), T. Hargett (USA)

09h15  
Long-time dephasing of optically active electron and hole spin qubits in self-assembled quantum dots  
T. Simmet (Germany), K. Müller (Germany), W. Rauhaus (Germany), M. Krems (Germany), F. Li (USA), A. Bechtold (Germany), N. Sinitsyn (Germany), J. Finley (Germany)

09h45  
Free dynamics of the electron spin precession in periodically pumped (In,Ga)As/GaAs quantum dots  
E. Evers (Germany), V.V. Belykh (Germany), N.E. Kopteva (Russia), I.A. Yugova (Russia), A. Greilich (Germany), D.R. Yakovlev (Germany), D. Reuter (Germany), A.D. Wieck (Germany), M. Bayer (Germany)

09h45  
Omnidirectional spin noise spectroscopy  
S. Cronenberger (France), C. Abbas (France), H. BoUKari (France), D. Scalbert (France)

> **Room Barthez**

**Semiconductors for MIR and THz - 3**

**Topic:** Semiconductors for MIR and THz  
**Moderators:** A. Vasanelli (France), P. Lustosa de Souza (Brazil)

08h30  
Strong light-matter coupling in ultra sub-wavelength intersubband THz circuits  
M. Jeannin (France), C. Sirtori (France), D. Gacemi (France), A. Vasanelli (France), G. Biasiol (Italy), V. Todorov (France)
08h45  Mid-infrared surface plasmon polaritons in a novel highly doped semiconductor
D.M. Di Paola (UK), M. Bomers (France), N. Balakrishnan (UK), M. Capizzi (Italy), A. Velichko (UK),
O. Makarovsky (UK), L. Cerutti (France), A. Baranov (France), M. Kesarv (UK), A. Krier (UK),
T. Tailier (France), A. Patané (UK)

09h00  Invited - Localized Phonon Polaritons: A Novel Platform for Mid-Infrared Polaritonics
S. de Liberato (UK), C. Gubbin (UK)

09h30  Dynamic control and switching of electromagnetically induced transparency in
terahertz metasurfaces based on bright-bright coupling
T. Searles (USA)

09h45  Terahertz emission induced by intra-excitonic optical transitions in semiconductors
A. Andrianov (Russia), A. Zakharév (Russia)

Room Einstein
2D materials and Van der Waals heterostructures - 6

Topic: 2D materials and Van der Waals heterostructures
Moderators: R. Ernstorfer (Germany)

08h30  Invited - Lightwave electronics and valleytronics in van-der-Waals bonded semiconductors
R. Huber (Germany)

09h00  Nano-imaging of intersubband transitions in few-layer 2D materials
P. Schmidt (Spain), F. Vialla (France), S. Latini (Germany), M. Massicotte (Spain), K.J. Tielrooij (Spain),
S. Mastel (Spain), G. Navickaite (Spain), M. Danovic (UK), D.A. Ruiz-Tijerina (UK), C. Velgel (UK),
V. Falko (UK), K. Thygesen (Denmark), R. Hillenbrand (Spain), F.H.L. Koppens (Spain)

09h15  Hyperbolic cooling of graphene Zener-Klein transistors
E. Baudin (France), W. Yang (France), R. Le Goff (France), D. Mele (France), C. Voisin (France),
B. Plaçais (France)

09h30  High-speed bolometry based on Johnson noise detection of hot electrons in cavity-coupled graphene
D. Efetov (Spain), D. Englund (USA), J. Hone (USA), K.C. Fong (USA), R.J. Shiue (USA), C. Tani (USA),
Y. Gao (USA), G. Grosso (USA), C. Peng (USA), A. Ali (Spain), X. Lu (Spain)

09h45  Density-functional perturbation theory for gated 2D heterostructures
T. Sohier (Switzerland), M. Gibertini (Switzerland), M. Calandra (France), F. Mauri (Italy),
N. Marzari (Switzerland)

Room Joffre 1
Topological insulators - 3

Topic: Topological insulators
Moderators: J.D. Sau (USA), V. Gavrilenko (Russia)

08h30  Circular and magnetoinduced photocurrents in Weyl semimetals
L. Golub (Russia), E. Ivchenko (Russia), B. Spirov (USA)

08h45  Visualizing coexisting surface states in the weak and crystalline topological insulator Bi2Te3
N. Nurit Avraham (Israel)

09h00  Zero-energy vortices in two-dimensional Weyl semimetals
M. Portnoi (UK), C. Downing (Spain)

09h15  Quantum Transport in Topological Semimetals
H.Z. Lu (China)

09h30  Invited - Non-linear transport and photogalvanic effects in 2D topological insulators
S. Tarasenko (Russia)

Room Rondelet
Physics of nanocrystals and quantum dots - 2

Topic: Physics of nanocrystals and quantum dots
Moderators: A. Rodina (Russia), M. Geller (Germany)

08h30  Resonance fluorescence revival in a voltage-controlled semiconductor quantum dot
R. Hostein (France), A. Reigue (France), A. Lemaitre (France), V. Voliotis (France)

08h45  Active tuning of the full g-tensor in single InGaAs/GaAs quantum dots via strain
H. Tholen (Netherlands), J. Wildmann (Austria), A. Rastelli (Austria), R. Tratta (Italy), C. Pryor (USA),
E. Zallo (Germany), O. Schmidt (Germany), P. Koenraad (Netherlands), A. Silov (Netherlands)

09h00  Site-controlled single photon emitters fabricated by near field illumination
F. Biccari (Italy), A. Boschetti (Italy), G. Pettinari (Italy), F. La China (Italy), M. Gurioli (Italy),
F. Intonti (Italy), A. Vinattieri (Italy), M.S. Sharma (Italy), M. Capizzi (Italy), A. Gerardino (Italy),
L. Businaro (Italy), M. Hopkinson (UK), A. Polimeni (Italy), M. Felici (Italy)
THURSDAY 02nd August, 2018

INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS

PROGRAMME

09h15 On-demand entangled photon pair generation
A. Ahmadi (Canada), A. Fognini (Netherlands)

09h30 Invited - High-Yield Fabrication of Entangled Photon Emitters for Hybrid Quantum Networking Using High-Temperature Droplet Epitaxy
S. Bietti (Italy), F. Basso Basset (Italy), M. Reindl (Austria), L. Esposito (Italy), A. Fedorov (Italy), D. Huber (Austria), A. Rastelli (Austria), E. Bonera (Italy), R. Trotta (Austria), S. Sanguinetti (Italy)

10h30-12h00 PARALLEL SESSIONS

› Room Antigone 1
Quantum transport in heterostructures - 6
Topic: Quantum transport in heterostructures
Moderators: J. Wang (China), J. Huang (USA)

10h30 Invited - Heat Coulomb blockade of one ballistic channel
E. Sivre (France), A. Anthore (France), F.D. Parmentier (France), A. Cavanna (France), U. Gennser (France), O. Abdelkarim (France), F. Pierre (France)

11h00 Specific Heat and Entropy in the Second Landau Level Fractional Quantum Hall Effect
G. Gervais (Canada), M. Petrescu (Canada), B. Schmidt (Canada), K. Bennaceur (India), L. Pfeiffer (USA), K. West (USA)

11h15 Transport phenomena and thermoelectric properties in modulation-doped GaAs/AlGaAs core-shell nanowires
S. Fust (Germany), J. Becker (Deutschland), D.J. Carrad (Deutschland), D. Irber (Deutschland), J. Seidl (Deutschland), A. Faustmann (Deutschland), B. Loitsch (Deutschland), A. Faustmann (Germany), J.J. Finley (Deutschland), G. Koblmüller (Deutschland)

11h30 Scanning gate thermoelectric microscopy of interaction effects in quantum point contacts
H. Sellier (France), B. Brun (Belgium), F. Martins (Belgium), S. Foniel (Belgium), U. Gennser (France), D. Mailly (France), S. Huant (France), M. Sanquer (France), V. Bayot (Belgium), B. Hackens (Belgium)

11h45 Thermionic cooling effect in AlGaAs GaAs Heterostructures
M. Bescond (Japan), A. Yangui (Japan), T.F. Yon (Japan), N. Nagai (Japan), N. Cavassilas (France), K. Hirakawa (Japan)

› Room Antigone 3
Quantum optics and nanophotonics - 4
Topic: Quantum optics and nanophotonics
Moderators: A. Foster (UK), A. Hofmann (Germany)

10h30 High Purcell factor generation of indistinguishable on-chip single photons
C. Phillips (UK), F. Liu (Germany), A. Brash (UK), J. O’Hara (UK), L. Martins (Sweden), R. Coles (UK), B. Royall (UK), E. Clarke (UK), C. Bentham (UK), N. Pirttjaja (UK), I. Itskevich (UK), L. Wilson (UK), M. Skolnick (UK), M. Fox (UK)

10h45 Unprecedented purity of single-photons
L. Schweickert (Sweden), K.D. Jöns (Sweden), K.D. Zeuner (Sweden), S.F. Covre Da Silva (Austria), H. Huang (Austria), T. Lettner (Sweden), M. Reindl (Austria), Z. Zichi (Sweden), R. Trotta (Italy), A. Rastelli (Austria)

11h00 Invited - A unique, electrically driven, site-controlled quantum dot source of single and polarization-entangled photons
G. Juska (Ireland), S.T. Moroni (Ireland), T.H. Chung (Ireland), A. Gocalinska (Ireland), E. Pelucchi (Ireland)

11h30 Selective pump focusing on individual laser modes in microcavities
J.H. Choi (South Korea), S. Chang (South Korea), K.H. Kim (South Korea), J.S. Park (South Korea), J.P. So (South Korea), H.C. Lee (South Korea), H.G. Park (South Korea)

11h45 Coherent polariton modes and lasing in ZnO nano- and microstructures
R. Schmidt-Grund (Germany), T. Michalsky (Germany), M. Wille (Germany), E. Krüger (Germany), R. Buschinger (Germany), C. Sturm (Germany), H. Franke (Germany), U. Peschel (Germany), M. Grundmann (Germany)

› Room Barthez
Growth and characterization - 4
Topic: Growth and characterization
Moderators: C. Durand (France)
10h30 Efficient phase separation of Ge(1-x)Sn(x) epilayers induced by free running Sn precipitates
F. Schaeffler (Austria), H. Groiss (Austria), M. Glaser (Austria), M. Schatzl (Austria), M. Brehm (Austria), D. Gerthsen (Germany)

10h45 Molecular beam epitaxy of near surface InAs two dimensional electron gas for topological quantum computation
C. Thomas (USA), A. Hatke (USA), M. Capano (USA), S. Gronin (USA), G. Gardner (USA), M. Manfra (USA)

11h00 Invited - Semiconductor / ferromagnetic insulator InAs/EuS epitaxy
Y. Liu (Denmark), F. Křížek (Denmark), P. Krogstrup (Denmark)

11h30 Effects of strain on Bi incorporation and optical properties of GaAsBi alloys grown by Molecular Beam Epitaxy
E. Tisbi (Italy), A. Zaganelli (Italy), E. Placidi (Italy), S. Cecchi (Germany), P. Prosposito (Italy), E. Zaillo (Germany), R. Ciarro (Germany), F. Arciprete (Italy)

11h45 Be doped GaAs nanowires grown by self-catalyzed molecular beam epitaxy: structural, optical and electrical properties
Y. Galvão Gobato (Brazil), H. Galeti (Brazil), M.R. Piton (Finland), E. Koivusaalo (Finland), S. Suomalainen (Finland), T. Hakkarainen (Finland), S. Souto (Brazil), A.D. Rodrigues (Brazil), P.S. Pizani (Brazil), D. Lupo (Finland), M. Guina (Finland)

> Room Joffre 1
Optical properties of heterostructures - 2
Topic: Optical properties of heterostructures
Moderators: M. Kaliteevski (Russia), M. Nestoklon (Russia)

10h30 Microseconds exciton spin dynamics in ultrathin indirect band gap GaAs/AlAs quantum wells with type-II band alignment
J. Rautert (Germany), T.S. Shamirzaev (Russia), D.R. Yakovlev (Germany), M.M. Glazov (Russia), E.L. Ivanchenko (Russia), M. Bayer (Germany)

10h45 Attractive Dipolar Interactions in Coupled Excitonic Multilayers
P. Santos (Germany), C. Hubert (Germany), Y. Baruchi (Israel), Y. Mazuz-Harpaz (Israel), K. Cohen (Israel), K. Biermann (Germany), M. Lemeskho (Austria), K. West (USA), L. Pfeiffer (USA), R. Rapaport (Israel)

11h00 Electrostatic trapping of indirect excitons in GaN/AlGaN quantum wells
F. Chiaruttini (France), T. Guillet (France), C. Brimont (France), T. Bretagnon (France), L. Doyennette (France), B. Jouault (France), P. Lefebvre (France), P. Varlin (France), Y. Cordier (France), B. Damilano (France), S. Chenot (France), M. Vladimirova (France)

11h15 Condensation threshold of semimagnetic microcavity polaritons
W. Pacuski (Poland), J.G. Rouset (Poland), M. Król (Poland), R. Mirek (Poland), D. Stephan (Poland), K. Lekenta (Poland), J. Szczotka (Poland), M. Nawrocki (Poland), B. Pietka (Poland)

11h30 Invited - Monolayer semiconductors in high magnetic fields: Revealing exciton masses, Rydberg states, and influence of the dielectric environment
S. Crooker (USA)

> Room Einstein
2D materials and Van der Waals heterostructures - 7
Topic: 2D materials and Van der Waals heterostructures
Moderators: X. Marie (France), M. Potemski (France)

10h30 Very Large Tunneling Magnetoresistance in Layered Magnetic Semiconductor CrI3
Z. Wang (Switzerland), I. Gütehrz-Lezama (Switzerland), N. Ubrig (Switzerland), M. Kroner (Switzerland), T. Taniguchi (Japan), K. Watanabe (Japan), A. Imamoğlu (Switzerland), E. Giannini (Switzerland), A. Morpurgo (Switzerland)

10h45 Fe-induced magnetism in van der Waals InSe semiconductor crystals
M.A. Bhuian (UK), F. Moro (UK), Z.R. Kudrynski (UK), R. Puttock (UK), O. Kazakova (UK), O. Makarovsky (UK), M.W. Fay (UK), C. Parmenter (UK), Z.D. Kovalyuk (UK), A.J. Fielding (UK), M. Kern (Germany), J.V. Slageren (Germany), A. Patarè (UK)

11h00 Biexcitons in monolayer transition metal dichalcogenides tuned by magnetic fields: toward a pure biexciton liquid
D. Karaiskij (USA), C. Stevens (USA), J. Paul (USA), T. Cox (USA), P. Sahoo (USA), H. Gutierrez (USA), V. Turkovskij (USA), D. Semenov (USA), S. Mcgill (USA), M. Kapetanakis (USA), I. Perakis (USA), D. Hilton (USA)

11h15 Strong anisotropic in-plane magnetotransport in a few-layer bP FET
F. Telesio (Italy), N. Hemsworth (Canada), W. Dickerson (Canada), P. Petrescu (Canada), V. Tayori (Canada), O. Yu (Canada), D. Graf (USA), M. Serrano-Ruiz (Italy), M. Caporali (Italy), M. Peruzzini (Italy), D. Bukhvalov (South Korea), T. Szkopek (Canada), G. Gervais (Canada), S. Heun (Italy)

11h30 Invited - exciton-Polariton Fano Resonance in a semiconductor microcavity
Z. Chen (China)
THURSDAY 02nd August, 2018

14h00-15h30
PARALLEL SESSIONS

> Room Antigone 1
Wide bandgap - 5

Topic: Wide bandgap
Moderators: K. O’Donnell (UK), G. Pozina (Sweden)

14h00
Invited - The growth of separated GaN array with micro size on sapphire nanomembrane
E. Yoon (South Korea), S. Lee (South Korea), D. Moon (South Korea), D. Choi (South Korea), H. Lim (South Korea), Y. Park (South Korea)

14h30
3D GaN nanowire arrays for vertical field-effect transistors
M.F. Fatahilah (Germany), F. Yu (Germany), K. Strempel (Germany), K. Frank (Germany), F. Römer (Germany), A. Bakin (Germany), B. Witzigmann (Germany), A. Waag (Germany), H.S. Wasisto (Germany)

14h45
Composition fluctuations and carrier localization in InGaN and AlGaN nanowires from the viewpoint of anomalous X-ray diffraction
B. Daudin (France), X. Zhang (France), M. Belloeil (France), E. Robin (France), C. Leclere (France), X. Biquard (France), M.G. Proietti (Spain), H. Renevier (France)

15h00
Enhanced Orange and Red Emissions by InGaN/GaN Nanocolumn Plasmonic Crystals
T. Oto (Japan), K. Kikuchi (Japan), K. Okamoto (Japan), K. Kishino (Japan)

15h15
Efficient light emission on silicon substrate using thin mesoporous GaN layers made by selective area sublimation
B. Damilano (France), S. Vézian (France), J. Massies (France)

> Room Antigone 3
Topological insulators - 4

Topic: Topological insulators
Moderators: S. Tarasenko (Russia), N. Samarth (USA)

10h30
Invited - Si-based optomechanics at room temperature
D. Navarro Urrios (Spain)

11h00
Two-qubit quantum gates in Si/SiGe quantum dots
A. Sigillito (USA), D. Zajac (USA), M. Guillans (USA), M. Russ (Germany), F. Borjans (USA), J. Taylor (USA), G. Burkard (Germany), J. Petta (USA)

11h15
Engineering long spin coherence times of holes in silicon
S. Rogge (Australia), T. Kobayashi (Australia), J. Salfi (Australia), C. Chua (Australia), J. Van Der Heijden (Australia), M. House (Australia), B. Johnson (Australia), J. McCallum (Australia), H. Riemann (Germany), N. Abrosimov (Germany), P. Becker (Germany), H.J. Pohl (Germany), M. Simmons (Australia)

11h30
Quantum Transport in Epitaxial NbN/GaN Superconductor/Semiconductor Heterostructures
D. Jena (USA)

11h45
Coherent spin-qubit photon coupling
A. Landig (Switzerland), J. Koski (Switzerland), P. Scarlino (Switzerland), U. Cabral Mendes (Canada), A. Blais (Canada), C. Reichl (Switzerland), W. Wegscheider (Switzerland), A. Walra (Switzerland), K. Ensslin (Switzerland), T. Ihn (Switzerland)

12h00-13h30
Room Antigone 1
Women in Science : discussion round
INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS

THURSDAY 02nd August, 2018

14h00  Surface States of Gapless 3D Topological Insulator
M. Savchenko (Russia), D. Kozlov (Russia), Z.D. Kvon (Russia), N. Mikhailov (Russia), S. Dvoretsky (Russia)

14h15  Restoring the Anderson localization in helical edge channels
S. Piatrusha (Russia), E. Tikhonov (Russia), V. Khrapai (Russia)

14h30  Probing spin helical surface states in topological HgTe nanowires
J. Ziegler (Germany), R. Kozlovsky (Germany), C. Gorini (Germany), M.H. Liu (Taiwan), S. Weishäupl (Germany), H. Maier (Germany), R. Fischer (Germany), D. Kozlov (Russia), Z.D. Kvon (Russia), N. Mikhailov (Russia), S. Dvoretsky (Russia), K. Richter (Germany), D. Weiss (Germany)

14h45  Observation of the 4$\pi$-periodic Josephson effect in InAs nanowires
D. Laroché (Netherlands), D. Bouman (Netherlands), D. Van Woerkom (Netherlands), A. Proutska (Netherlands), C. Murthy (USA), D. Pikulin (USA), C. Nayak (USA), R. Van Gulik (Netherlands), D. Krogstrup (Denmark), L. Kouwenhoven (Netherlands), A. Geresdi (Netherlands)

15h00  Invited - Search for Non-Abelian Majorana zero modes at semiconductor-superconductor interfaces: theory
J.D. Sau (USA)

> Room Barthez

Devices and applications - 4

Topic: Devices and applications
Moderators: M.A. Khan (South Korea), A. Raymond (France)

14h00  Quantum cascade lasers grown on silicon
R. Teissier (France), V.H. Nguyen (France), Z. Loghmari (France), L. Cerutti (France), J.B. Rodriguez (France), J. Tournet (France), G. Narcy (France), G. Boissier (France), G. Patriarche (France), M. Bahriz (France), C. Jeremie (France), N. Pauc (France), R. Khazaka (France), J. Aubin (France), A. Quintero (France), P. Rodriguez (France), A. Tchelnokov (France), J.M. Hartmann (France), V. Calvo (France), V. Reboud (France)

14h15  Type-II GaSb Quantum Ring Optical Devices
P. Hodgson (UK), T. Wilson (UK), Z. Qian (USA), C. Woodhead (UK), R. Bernardo Gavito (UK), A. Robson (UK), T. Slight (UK), S. Mcdougall (UK), K. Kennedy (UK), S. Korn (UK), M. Hayne (UK)

14h30  Invited - Direct band-gap GeSn heterostructures grown on step-graded GeSn buffers
M. Bertrand (France), Q. Thai (France), C. Jeremie (France), N. Pauc (France), R. Khazaka (France), J. Aubin (France), A. Quintero (France), P. Rodriguez (France), A. Tchelnokov (France), J.M. Hartmann (France), V. Calvo (France), V. Reboud (France)

15h00  «Black» Titania Coatings Composed of Sol-Gel Imprinted Mie Resonators Arrays
M. Abbarchi (France)

15h15  Bacterial stress monitoring with a SOI optical microcavity
M. Tardif (France), R. Therisod (Switzerland), E. Picard (France), P.R. Marcoux (France), V. Gaude (France), J.B. Jager (France), R. Houdré (Switzerland), E. Hadji (France), D. Peyrade (France)

> Room Einstein

2D materials and Van der Waals heterostructures - 8

Topic: 2D materials and Van der Waals heterostructures
Moderators: S. Crooker (USA)

14h00  Exciton-phonon coupling in MoSe2 monolayers encapsulated in hexagonal boron nitride
B. Urbaszek (France), S. Shree (France), M. Semina (Russia), B. Han (France), M. Manca (France), E. Courtade (France), A. Balocchi (France), P. Renucci (France), T. Taniguchi (Japan), K. Watanabe (Japan), X. Mare (France), T. Amand (France), C. Robert (France), M. Glazov (Russia)

14h30  Invited - Nonlinear exciton transport in transition metal dichalcogenides monolayers
M. Glazov (Russia)

15h00  Control of exciton-phonon coupling in mechanically strained transition metal dichalcogenide monolayers
I. Niehues (Germany), R. Schmidt (Germany), M. Drüppel (Germany), P. Maruahn (Germany), D. Christiansen (Germany), M. Selig (Germany), G. Berghäuser (Sweden), D. Wigger (Germany), R. Schneider (Germany), L. Braasch (Germany), R. Koch (Germany), A. Castellanos-Gomez (Spain), T. Kuhn (Germany), A. Knorr (Germany), E. Malic (Sweden), M. Rohlfing (Germany), S. Michaelis de Vasconcellos (Germany), R. Bratschitsch (Germany)

15h15  Phonon-processes in photoluminescence of electron and hole doped monolayer WSe2
B. Kardynal (Germany), J.S. Tu (Germany), S. Bozorth (Germany)

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Room Joffre 1
Quantum optics and nanophotonics - 5

Topic: Quantum optics and nanophotonics
Moderators: P. Michler (Germany)

14h00 Invited - Multi-photon quantum boson sampling on a semiconductor
J.W. Pan (China)

14h30 Ultrafast cavity switching: A novel resource for solid-state CQED
J.M. Gerard (France), E. Peinke (France), T. Sattler (France), J. Bleuse (France), J. Claudon (France), W.L. Vos (France)

14h45 Single photon Fock state filtering with an artificial atom
C. Antón Solanas (France), L. de Santis (France), B. Reznychenko (France), N. Somaschi (France), G. Coppola (France), J. Senellart (France), C. Gomez (France), A. Lemaître (France), I. Sagnes (France), A.G. White (Australia), L. Lanco (France), A. Auffeves (France), P. Senellart (France)

15h00 Photon number-resolved measurement of an exciton-polariton condensate
M. Klaas (Germany), E. Schlottmann (Germany), H. Flayac (Switzerland), F. Laussy (UK), F. Gericke (Germany), M. Schmidt (Germany), M. Helversen (Germany), J. Beyer (Germany), S. Brodbeck (Germany), H. Suchomel (Germany), S. Höfling (Germany), S. Reitzenstein (Germany), C. Schneider (Germany)

15h15 Symmetry Breaking in Photonic Crystals: On-Demand Dispersion from Flatband to Dirac Cones and Multivalley dispersion
N. Hai Son (France), D. Florian (France), D. Thierry (France), C. Sébastien (France), L. Jean-Louis (France), S. Christian (France), L. Xavier (France), V. Pierre (France)

Room Rondelet
Perovskites and organic semiconductors - 3

Topic: Perovskites and organic semiconductors
Moderators: J. Even (France), J.C. Blanco (USA)

14h00 Effects of impurity doping on optoelectronic properties of APbX3 lead halide perovskites
Y. Yamada (Japan), M. Hoyano (Japan), R. Akashi (Japan), K. Oto (Japan), Y. Konemitsu (Japan)

14h15 Quantitative Analysis of the Density of Trap States in Organic Semiconductors by Electrical Transport Measurements on Low-Voltage Thin-Film Transistors
M. Geiger (Germany), L. Schwarz (Germany), J. Zschieschang (Germany), D. Manske (Germany), J. Pflaum (Germany), H. Klaui (Germany), R.T. Weitz (Germany)

14h30 Contact-free sub-decay time control of the optical emission of lead halide perovskite nanowires
L. Janker (Germany), Y. Tong (Germany), Polavarapu (Germany), J. Feldmann (Germany), A.S. Urban (Germany), H.J. Krenner (Germany)

14h45 Low temperature dielectric and impedance spectroscopy studies of NdFeO3 perovskite nano polycrystalline material
S. Jada (India), S.B. Devarasetty (India), N.R. Gade (India), R.R. Varimalla (India)

15h00 Invited - Lattice anharmonic displacements and their effect on electronic properties of soft semiconductors
O. Yaffe (Israel)

16h00-17h30 PARALLEL SESSIONS

Room Antigone 1
Spintronics and spin phenomena - 5

Topic: Spintronics and spin phenomena
Moderators: P. Baranov (Russia)

16h00 Invited - Quantum Computation and Simulation - Spins Inside
L.M.K. Vandersypen (Netherlands)

16h30 Circuit QED with Silicon Spin Qubits
F. Borjas (USA), X. Mi (USA), M. Benito (Germany), S. Putz (USA), D. Zajac (USA), J. Taylor (USA), G. Burkard (Germany), J. Petta (USA)

16h45 Spectroscopy and level detuning of few-electron spin states in parallel InAs quantum dots
C. Thelander (Sweden), M. Nilsson (Sweden), F. Viñas Boström (Sweden), A. Burke (Sweden), S. Lehmann (Sweden), K. Dick (Sweden), M. Leijnse (Sweden)
INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS
THURSDAY 02nd August, 2018

Room Barthez
Physics of nanocrystals and quantum dots - 3

Topic: Physics of nanocrystals and quantum dots
Moderators: D. Wigger (Germany), M. Bayer (Germany)

The Temporal Dynamics of Electronic Spin Qubits Confined in Quantum Dots
D. Cogan (Israel), O. Kenneth (Israel), N. Lindner (Israel), G. Peniakov (Israel), C. Hopffmann (Israel), D. Dalacu (Canada), P. Poole (Canada), P. Hawrylak (Canada), D. Gershoni (Israel)

Room Antigone 3
Late News - 2

Moderators: M. Vladimirova (France), E. Tournie (France)

16h00
Quantum correlations of confined exciton-polaritons
A. Delteil (Switzerland), T. Fink (Switzerland), A. Schade (Germany), S. Höfling (Germany), C. Schneider (Germany), A. Imamoglu (Switzerland)

16h15
Coherent superpositions of multiple eigenstates for Si:P prepared using THz radiation
S. Chick (UK), B. Murdin (UK)

16h30
Brillouin scattering in Bragg-based micropillar resonators at 300-GHz
N.D. Lanzillotti Kimura (France), M. Esmann (France), F.R. Lamberti (France), A. Harouri (France), L. Lanca (France), P. Senellart (France), I. Sagnes (France), O. Krebs (France), A. Lemaître (France)

16h45
Trion and Biexciton Complexes Formed by Indirect Excitons in Layered Quasi-2D Heterostructures
I. Bondarev (USA), M. Vladimirova (France)

17h00
**Invited** - Atomic step ow in a limited area: in situ observation of GaAs nanowire growth in a transmission electron microscope
G. Patriarche (France), J.C. Harmand (France), F. Glas (France), L. Travers (France), Y. Olivier (France), F. Pancrazi (France), I. Florea (France), J.L. Maurice (France)

Room Einstein
Quantum transport in heterostructures - 7

Topic: Quantum transport in heterostructures
Moderators: B.A. Braem (Switzerland), C. Chaubet (France)

Non-universal transmission phase behaviour of a large quantum dot
H. Edlbauer (France), S. Takada (Japan), G. Roussel (France), M. Yamamoto (Japan), S. Tarucha (Japan), A. Ludwig (Germany), A.D. Wieck (Germany), T. Meunier (France), C. Bäuerle (France)
16h15 Direct measurement on the Kondo cloud length in a quantum dot coupled to a 1D Fabry-Perot interferometer
M. Yamamoto (Japan), I.V. Borzenets (Hong Kong), J.C.H. Chen (Japan), A. Ludwig (Germany), A.D. Wieck (Germany), S. Tarucha (Japan)

16h30 Invited - Long range quantum state transfer in ac driven quantum dot arrays
G. Platero (Spain)

17h00 Spin filling and orbital structure of the first six holes in a silicon metal-oxide-semiconductor quantum dot
S. Liles (Australia), R. Li (The Netherlands), H. Yang (Australia), F. Hudson (Australia), M. Veldhorst (The Netherlands), A. Dzurak (Australia), A. Hamilton (Australia)

17h15 On the effect of barrier thickness in the electronic quantum transport across polar resonant tunneling diodes
J. Encomendero (USA), S. Islam (USA), V. Protasenko (USA), P. Fay (USA), D. Jena (USA), G. Xing (USA)

> Room Joffre 1

Optical properties of heterostructures - 3

Topic: Optical properties of heterostructures
Moderators: J. Finley (Germany)

16h00 Polarization envelope helicity dependent photocurrents in GaAs/AlGaAs modulation-doped quantum well
H. Ito (Japan), T. Nakano (Japan), S. Nomura (Japan), K. Misawa (Japan)

16h15 Magnetic field-free circularly polarized thermal emission from chiral metasurface
S. Dyakov (Russia), N. Gippius (Russia), S. Tikhodeev (Russia)

16h30 Carrier localization and interwell coupling of ML-thick In0.25Ga0.75N QWs in the InGaN/GaN superlattices
M. Anikeeva (Germany), T. Schulz (Germany), C. Chèze (Germany), R. Calarco (Germany), J.W. Tomm (Germany), F. Mahler (Germany), L. Lymerakis (Germany), M. Albrecht (Germany)

16h45 Ultrafast carrier dynamics in AlGaN/GaN superlattices by time-dependent reflectivity measurements
F. Mahler (Germany), K. Reimann (Germany), J.W. Tomm (Germany), M. Woerner (Germany), T. Elsaesser (Germany), C. Flytzanis (France), V. Hoffmann (Germany), M. Weyers (Germany)

17h00 Invited - Purcell effect and non-linear behavior of the emission in the periodic structure of InAs monolayers embedded in GaAs matrix
M. Kaliteevski (Russia), G. Pozina (Sweden), E. Nikitina (Russia), A. Gubaydullin (Russia), K. Ivanov (Russia), A. Egorov (Russia)

> Room Rondelet

Point defects and artificial atoms - 2

Topic: Point defects and artificial atoms
Moderators: S. Rogge (Australia)

16h00 Invited - Strong, uniform coupling a superradiant spin ensemble to a microwave cavity
S. Lyon (USA)

16h30 Coupling of quantum emitters in 4H SiC nanopillars
J.M. Bluet (France), A.S. Al Atem (France), B. Canut (France), A.F. Almutairi (France), S. Casteletto (Australia), N. Chauvin (France), G. Guillot (France)

16h45 Identification and tunable optical coherent control of transition-metal spins in silicon carbide
C. Van Der Wai (Netherlands), T. Bosma (Netherlands), G.J.L. Lof (Netherlands), C.M. Gilardoni (Netherlands), O.V. Zveir (Netherlands), F. Hendriks (Netherlands), R.W.A. Havenith (Netherlands), B. Magnusson (Sweden), A. Ellison (Sweden), A. Gallström (Sweden), I.G. Ivanov (Sweden), N.T. Son (Sweden)

17h00 Pushing the limits of electrically driven single-photon sources using color centers in silicon carbide
D. Fedyanin (Russia), I. Khramtsov (Russia), A. Vyshnevyy (Russia)

17h15 Characterization of the Si:Se+ spin-photon interface
A. Deabreu (Canada), R. Abraham (Canada), C. Bowness (Canada), A. Medvedova (Canada), T. Richards (Canada), K. Morse (Canada), H. Riemann (Germany), N. Abrosimov (Germany), P. Becker (Germany), H.J. Pohl (Germany), M. Thewalt (Canada), S. Simmons (Canada)

17h30 Quantum state imaging of donor spin devices in silicon
B. Voisin (Australia), J. Safi (Australia), M. Usman (Australia), J. Bocquel (Australia), A. Tankasala (USA), B.C. Johnson (Australia), J.C. Mc Callum (Australia), R. Rahman (USA), M.Y. Simmons (Australia), L.C. Hollenberg (Australia), S. Rogge (Australia)
FRIDAY 03rd August, 2018

INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS

08h30-10h00 PARALLEL SESSIONS

Room Antigone 1
Wide bandgap - 6

- Coherent and spin spectroscopy of c-plane GaN nanostructures
  M. Gallart (France), M. Hrytsaienko (France), M. Ziegler (France), S. Tamariz-Kaufmann (Switzerland), E. Feltin (Switzerland), R. Butté (Switzerland), N. Grandjean (Switzerland), B. Hönlerade (France), P. Gilliot (France)

- Guided polaritons in a GaN planar waveguide
  T. Guiliet (France), C. Brimont (France), L. Doyennette (France), F. Réveret (France), P. Disseix (France), F. Médard (France), J. Leymarie (France), C. Deparis (France), S. Rennesson (France), F. Semond (France), J. Zuniga-Perez (France), E. Cambril (France), S. Bouchoule (France)

Room Antigone 3
Spintronics and spin phenomena - 6

- Direct Observation of Spin Polarization in GaAs Quantum Wires by Transverse Electron Focusing
  S. Kumar (UK), C. Yan (UK), M. Pepper (UK), K. Thomas (UK), P. See (UK), D. Ritchie (UK), I. Farrar (UK), G. Jones (UK), J. Griffiths (UK)

- Spin Mobility in a 2DEG with Persistent Spin Helices
  F. Hernandez (Brazil), M. Luengo-Kovac (USA), F.C.D. Moraes (Brazil), G.J. Ferreira (Brazil), A.S.L. Ribeiro (Brazil), G.M. Gusev (Brazil), A.K. Bakarov (Russia), V. Sih (USA)

- Non-stationary effects in correlated quantum dot coupled to the reservoirs: effective spin filtering and non-stationary spin currents tuning
  V. Mantsevich (Russia), N. Maslova (Poccum), P. Arseyev (Russia)

- Highly efficient spin-to-charge current conversion at room temperature in strained HgTe surface states
  P. Noel (France), C. Thomas (France), J. Papin (France), P. Ballet (France), L. Vila (France), T. Meunier (France), J.P. Attané (France)

- Invited - Magnon-phonon hybridization in magnetic insulators
  G. Bauer (Japan)

- Invited - The defect physics of GaN: how the competition between compact and shallow states determines luminescence properties
  J. Buckeridge (UK), Z. Xie (UK), A. Walsh (UK), D. Scanlon (UK), A. Sokol (UK)

- Trap-related localized breakdown in carbon-doped GaN
  C. Koller (Austria), G. Pobegen (Austria), C. Ostermaier (Austria), D. Pogary (Austria)

- Q-carbon normal and superconducting properties
  M. Cohen (USA)

- Strongly correlated charge transport in silicon MOSFET quantum dots
  F. Parmentier (France), M. Seo (France), P. Rouleau (France), D.C. Giartti (France), M. Sanquer (France), X. Jehl (France), H. Hutin (France), S. Barraud (France)

- Coherent transport through double quantum dot interferometer in multi-terminal geometry
  Y. Zhang (Japan), M. Eto (Japan)

- Thermal effects in a Kondo-correlated double quantum dot
  S. Miguel Ambrosio (Spain), R. Lopez (Spain), J.P. Attané (France)

- Fano effect in the transport of an artificial molecule
  S. Norimoto (Japan), S. Nakamura (Japan), Y. Okazaki (Japan), T. Arakawa (Japan), K. Asano (Japan), K. Onomitsu (Japan), K. Kobayashi (Japan), N.H. Kaneko (Japan)
FRIDAY 03rd August, 2018

INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS

PROGRAMME

Room Joffre 1

Topological insulators - 5

Topic: Topological insulators
Moderators: M. Portnoi (UK)

08h30
Quantum Confined States in Topological Crystalline Insulator Heterostructures
V.V. Volobuev (Poland), R. Rechcinski (Poland), M. Galicka (Poland), O. Caha (Czech Republic), M. Simma (Austria), P.S. Mandal (Germany), E. Golias (Germany), J. Sanchez-Barriga (Germany), A. Varykhalov (Germany), G. Bauer (Austria), P. Kacman (Poland), R. Buczko (Poland), G. Springholz (Austria)

08h45
Probing the topological states in Pb1-xSnxSe versus temperature using magnetooptics
B. Assaf (France), G. Krizman (France), T. Phuphachong (France), V. Volobuev (Austria), G. Bauer (Austria), G. Springholz (Austria), R. Ferreira (France), L.A. de Vaulchier (France), Y. Guldner (France)

09h00
Invited - Topological Spintronics
N. Samarth (USA)

09h30
On-chip microwave spectroscopy of the building blocks of topological quantum bits
A. Geresdi (Netherlands), A. Proutski (Netherlands), D. Laroche (Netherlands), D.J. Van Woerkom (Netherlands), D. Bouman (Netherlands), B. Van Heck (USA), J.I. Väyrynen (USA), L.I. Glazman (USA), P. Krogstrup (Denmark), J. Nygård (Denmark), L.P. Kouwenhoven (Netherlands)

09h45
Helical states from the noise perspective
V. Khrapai (Russia), E. Tikhonov (Russia), S. Piatrusha (Russia)

Room Pasteur

2D materials and Van der Waals heterostructures - 9

Topic: 2D materials and Van der Waals heterostructures
Moderators: M. Glazov (Russia)

08h30
Invited - Presentation shifted to the session 2D materials and Van der Waals heterostructures - 2
S. Zhou (China)

09h00
Dynamic band structure tuning of graphene moiré superlattices with pressure
M. Yankowitz (USA), J. Jung (Korea), E. Laksomo (Singapore), N. Leconte (Korea), B. Chittari (Korea), K. Watanabe (Japan), T. Taniguchi (Japan), S. Adam (Singapore), D. Graf (USA), C. Dean (USA)

09h15
Probing strong correlations in graphene at the Van Hove singularity
J. Geurs (Germany), S. Link (Germany), U. Starke (Germany), J.H. Smet (Germany)

09h30
Novel ground states in graphene double-layer in the quantum Hall regime
J. Li (USA), K. Watanabe (Japan), T. Taniguchi (Japan), J. Hone (USA), C. Dean (USA)

09h45
Electrostatically Induced Nanostructures in Bilayer Graphene
H. Overweg (Switzerland), P. Rickhaus (Switzerland), H. Eggimann (Switzerland), X. Chen (UK), S. Slizovskiy (UK), M. Eich (Switzerland), R. Pisoni (Switzerland), Y. Lee (Switzerland), K. Watanabe (Japan), T. Taniguchi (Japan), V. Fal’Ko (UK), T. Ihn (Switzerland), K. Ensslin (Switzerland)

Room Rondelet

Point defects and artificial atoms - 3

Topic: Point defects and artificial atoms
Moderators: A. Dreau (France)

08h30
Interplay between magnetic-field-induced relaxation and resonance ultrasonic attenuation in cubic ZnSe:Cr
K. Baryshnikov (Russia), N. Averkiev (Russia), I. Bersuker (USA), V. Gudkov (Russia), I. Zhevstovskikh (Russia), M. Sarychev (Russia), S. Zherlitsyn (Germany), S. Yasin (Kuwait), Y. Korostelin (Russia)

08h45
Anomalous pressure characters of defects in hexagonal boron nitride flakes
B. Sun (China)

09h00
A Mg-pair isoelectronic bound exciton identified by its isotopic fingerprint in 28Si
M. Thewalt (Canada), R. Abraham (Canada), A. Deabreu (Canada), K. Morse (Canada), V. Shuman (Russia), L. Portsels (Russia), A. Lodygin (Russia), Y. Astrov (Russia), N. Abrosimov (Germany), S. Pavlov (Germany), H.W. Hübers (Germany), S. Simmons (Canada)

09h15
G defect in silicon for nanophotonics
W. Redjem (France), C. Beauvais (France), E. Rousseau (France), V. Jacques (France), M. Abbarichi (France), M. Jan (Germany), G. Cassabois (France)

09h30
Invited - A photonic link for donor spin qubits in silicon
S. Simmons (Canada)
FRIDAY 03rd August, 2018

10h30-12h00 PARALLEL SESSIONS

▶ Room Antigone 1
Quantum transport in heterostructures - 8

Topic: Quantum transport in heterostructures
Moderators: J.C. Bayer (Germany), B. Plaçais (France)

10h30
Topological and interlayer coherence phase transition in twisted bilayer graphene
Y. Kim (Germany), P. Herlinger (Germany), P. Moon (China), M. Koshino (Japan), T. Taniguchi (Japan), K. Watanabe (Japan), J. Smet (Germany)

10h45
The Josephson effect in Nb/InAs/Nb junctions under in-plane magnetic fields
T. Nakamura (Japan), Y. Hashimoto (Japan), S. Katsumoto (Japan)

11h00
Demonstration of the Josephson effect in a double quantum dot
J.C. Estrada Soláda (Denmark), K. Grove-Rasmussen (Denmark), A. Vekris (Denmark), G. Steffensen (Denmark), P. Kroghstrup (Denmark), J. Paaske (Denmark), J. Nygård (Denmark)

11h15
Josephson frequency of Fractional charges from shot noise measurements
K. Maëlle (France), P. Rouleau (France), I. Farrer (UK), D. Ritchie (UK), C. Glatiti (France)

11h30
Invited - Observation of Cooper pair splitting in a ballistic Josephson junction through double InAs nanowires
K. Ueda (Japan), S. Matsuo (Japan), H. Kamata (Japan), Y. Sato (Japan), Y. Takeshige (Japan), K. Li (China), L. Samuelson (Sweden), S. Jeppešen (Sweden), H. Xu (China), S. Tarucha (Japan)

▶ Room Antigone 3
Spintronics and spin phenomena - 7

Topic: Spintronics and spin phenomena
Moderators: G. Bauer (Japan), M. Dyakonov (France)

10h30
Acoustic Coherent Phonon Propagation in Ferromagnetic GaMnAs in the Presence of External Magnetic Fields
G. Khodaparast (USA), B. Magill (USA), G. Sanders (USA), C. Stanton (USA), S. Mcgill (USA), H. Munekata (Japan)

10h45
Giant manipulation of the Curie temperature in magnetic semiconductor (Ga,Mn)As
J. Zhao (China), H. Wang (China)

11h00
Invited - Spin transport over huge distances in magnetized 2D electron system
A. Gorbanov (Russia), V. Kuznetsov (Russia), A. Zhurovlev (Russia), L. Kulik (Russia), V. Timofeev (Russia), I. KUKushkin (Russia)

11h30
Acoustic charge and electron-spin transport in GaAs quantum wires
P. Helgers (Germany), K. Biermann (Germany), H. Sanada (Japan), Y. Kunihashi (Japan), P. Santos (Germany)

11h45
Current-controlled Dresselhaus spin-orbit interaction
Y. Kunihashi (Japan), H. Sanada (Japan), Y. Tanaka (Japan), H. Gotoh (Japan), K. Onomitsu (Japan), M. Kohda (Japan), J. Nitta (Japan), T. Sogawa (Japan)

▶ Room Barthez
Semiconductors for MIR and THz - 4

Topic: Semiconductors for MIR and THz
Moderators: S. de Liberato (UK)

10h30
Invited - Cooperative phenomena and ultra-strong light-matter coupling for tailored thermal emission
A. Vasanelli (France)

11h00
Continuous wave operation of InAs-based quantum cascade lasers above 20 µm
Z. Loghmari (France), M. Bahriz (France), A. Meguekam (France), H. Nguyen (France), R. Teissier (France), A. Baranov (France)

11h15
Giant THz multiphoton absorption in silicon
B. Murdin (UK)

11h30
Nonlinear photocurrent and photoconductivity induced by intense terahertz radiation in HgTe-based quantum well structures
S. Hubmann (Germany), S. Gebert (Germany), G. Budkin (Russia), V. Bel’Kov (Russia), E. Ychenko (Russia), A. Dmitriev (Russia), D. Kozlov (Russia), N. Mikhailov (Russia), S. Dvoretsky (Russia), Z.D. Kvon (Russia), S. Ganichev (Germany)
FRIDAY 03rd August, 2018

INTERNATIONAL CONFERENCE ON THE PHYSICS OF SEMICONDUCTORS

Programme

11h45
Carrier dynamics in narrow gap HgCdTe based structures studied by time resolved photoconductivity, photoluminescence and pump-probe techniques
V. Rumyantsev (Russia), S. Morozov (Russia), N. Mikhailov (Russia), V. Aleshkin (Russia), D. Svinitsov (Russia), S. Winnerl (Germany), S. Dvoretsky (Russia), M. Helm (Germany), H.W. Hübers (Germany), V. Gavrilenko (Russia)

Room Joffre 1
Optical properties of heterostructures - 4

Topic: Optical properties of heterostructures
Moderators: Z. Chen (China), F. Carosella (France)

10h30
1.5 µm Quantum Dots Spectral Hole Burning experiments for dual frequency laser engineering
G. Brévalle (France), M. Perrin (France), C. Paranthoën (France), Y. Léger (France), C. Levallois (France), H. Folliot (France), M. Alouini (France)

10h45
Acoustic-phonon engineering in GaAs/AlAs heterostructures: cavities and potentials
O. Ortiz (France), M. Esmann (France), F. Lamberti (France), P. Senellart (France), L. Lanco (France), A. Lemaitre (France), N.D. Lanzillotti-Kimura (France)

11h00
Mechanical control of coupling between dark and bright bound excitons
R. Ohta (Japan), H. Okamoto (Japan), T. Towara (Japan), H. Gotoh (Japan), H. Yamaguchi (Japan)

11h15
Less than 100 electrons ultrastrongly coupled to THz nano-gap hybrid LC metasurfaces
J. Keller (Switzerland), G. Scarrì (Switzerland), S. Cibella (Italy), F. Appugliese (Switzerland), C. Maissen (Switzerland), E. Giovine (Italy), R. Leoni (Italy), M. Beck (Switzerland), J. Faist (Switzerland)

11h30
Spectroscopic evidence for mass renormalization in microwave irradiated MgZnO/ZnO heterostructures
D. Tabrea (Germany), J. Falson (Germany), I. Dmitriev (Germany), Y. Kozuka (Japan), A. Tsukazaki (Japan), M. Kawasaki (Japan), K. von Klitzing (Germany), J. Smet (Germany)

Room Rondelet
Quantum engineering - 2

Topic: Quantum engineering
Moderators: D. Navarro Urrios (Spain), A. Sigillito (USA)

10h30
Invited - Propagation control of acoustic waves in GaAs-based phononic crystal waveguides
H. Yamaguchi (Japan)

11h00
Coherent Transmon-Charge Qubit Coupling Mediated by Virtual Photon Exchange in a High Impedance Resonator
P. Scarlino (Switzerland), D.J. Woerkom (Switzerland), U.C. Mendes (Canada), J.V. Koski (Switzerland), A.J. Landig (Switzerland), C.K. Andersen (Switzerland), S. Gasparinetti (Switzerland), C. Reichl (Switzerland), W. Wegscheider (Switzerland), T. Ihn (Switzerland), K. Ensslin (Switzerland), A. Blois (Canada), A. Wallraff (Switzerland)

Room Pasteur
2D materials and Van der Waals heterostructures - 10

Topic: 2D materials and Van der Waals heterostructures
Moderators: C. Faugeras (France)
FRIDAY 03rd August, 2018

Coherent displacement of individual electron spins in a two-dimensional array of tunnel coupled quantum dots
P.A. Mortemousque (France), H. Flentje (France), E. Chanrion (France), A. Ludwig (Germany), A.O. Wieck (Germany), M. Urdampilleta (France), C. Bäuerle (France), T. Meunier (France)

Photon-mediated interactions between gate-defined quantum dot qubits
D. Van Woerkom (Switzerland), P. Scarlino (Switzerland), J. Ungerer (Switzerland), C. Müller (Switzerland), J. Koski (Switzerland), R. Christian (Switzerland), W. Wegscheider (Switzerland), T. Ihn (Switzerland), K. Ensslin (Switzerland), A. Wallraff (Switzerland)

The charge-Kondo quantum dot device: a quantum simulator for highly correlated physics
U. Gennser (France), Z. Ifthikhar (France), S. Jezouin (France), A. Anthore (France), A. Mitchell (Ireland), F. Parmentier (France), A. Ouerghi (France), A. Cavanna (France), C. Mora (France), P. Simon (France), F. Pierre (France)

A CMOS silicon spin qubit
M. Sanquer (France), L. Hutin (France), S. Barraud (France), B. Bertrand (France), M. Vinet (France), H. Bohuslavskyi (France), T. Meunier (France), C. Bäuerle (France), M. Urdampilleta (France), L. Bourdet (France), Y.M. Niquet (France), A. Amisse (France), A. Cornu (France), A. Crippa (France), X. Jehl (France), R. Maurand (France), S. de Franceschi (France)

PLENARY SESSION

Moderator: K. Ensslin (Switzerland)

Advanced Semiconductor Structures for Photovoltaics and Artificial Photosynthesis
H. Atwater (USA)

Majorana Networks from the Bottom - Up
E. Bakkers (Netherlands)

IUPAP YSP WINNERS

Moderator: R.J. Haug (Germany)
P1_010
Next generation polycrystalline materials for electronics: the surprise of on-glass III-V, hetero-structured, polycrystalline thin films with high n- and p-type mobilities grown by MOVPE at temperatures of 480 °C and below
E. Pelucchi (Ireland), E. Secco (Ireland), A. Pescaglini (Ireland), A. Gocalinska (Ireland), E.E. Mura (Ireland), K. Thomas (Ireland), A. Curran (Ireland), F. Gity (Ireland), P. Hurley (Ireland), I. Povey (Ireland)

P1_011
Incorporation of B into BGaAs layers for strain engineering
G. Strasser (Austria), H. Detz (Czech Republic), D. Macfarland (Austria), M. Potoček (Czech Republic), S. Lancaster (Austria), T. Zederbauer (Austria), A.M. Andrews (Austria), W. Schrenk (Austria)

P1_013
Fs-time-resolved ellipsometry to study the dynamics in the electronic density of states
S. Richter (Czech Republic), S. Espinoza (Czech Republic), M. Rebarz (Czech Republic), O. Herrfurth (Germany), M. Kioz (Czech Republic), M. Rübhausen (Germany), M. Grundmann (Germany), R. Schmidt-Grund (Germany), S. Zollner (USA), J. Andreasson (Czech Republic)

P1_014
Electron-stimulated III-nitride crystalline phase formation on the sapphire surface in ammonia MBE
K. Zhuravlev (Russia), D. Milakhin (Russia), V. Mansurov (Russia), Y. Galitsyn (Russia), T. Malin (Russia)

P1_016
Structural and electronic properties of epitaxial graphene grown on SiC (0001) at low argon pressure
T. Wang (France), P. Landais (France), M. Bayle (France), J.R. Huntzinger (France), A. de Cecco (France), H. Courtois (France), C. Winkelmann (France), P. McIntyre (USA)

P1_019
InN - an extremely radiation-resistant semiconductor
Z. Podlipskas (Lithuania), J. Jurkevicius (Lithuania), A. Kadyts (Lithuania), M. Kolenda (Lithuania), V. Kovalevskij (Lithuania), D. Dobrovolskas (Lithuania), R. Aleksiunas (Lithuania), G. Tamulaitis (Lithuania)
P1_020 Growth of thin semi-insulating SiC layers for back-gated epitaxial graphene
J. Kunc (Czech Republic), M. Rejhon (Czech Republic), V. Đelić (Czech Republic)

P1_021 Thermal roughening of GaAs surface: experiment and Monte Carlo simulation
D. Kazantsev (Russia), I. Akhundov (Russia), N. Shwartz (Russia), V. Alperovich (Russia), A. Latyshev (Russia)

P1_022 II-VI Distributed Bragg Reflector made of binary compounds: CdSe and ZnTe
K. Polczyńska (Poland), W. Pacuski (Poland)

P1_023 Carrier diffusivity-limited peak internal quantum efficiency in InGaN QWs with different widths
K. Nomeika (Lithuania), R. Aleksejunas (Lithuania), S. Nargelas (Lithuania), K. Jarasiunas (Lithuania)

P1_024 Coexistence of Voigt and classical waves along singular optic axes
C. Sturm (Germany), M. Grundmann (Germany)

P1_025 Cu ion implantation improves the performance of Si film anode used in Lithium ion battery
G.A. Cheng (China), Z.G. Hu (China), R.T. Zheng (China)

P1_029 Intermixing at GaN/AlN interfaces in GaN/AlN multiple quantum wells
I. Aleksandrov (Russia), T. Malin (Russia), K. Zhuravlev (Russia), S. Erenburg (Russia), Y. Lebiadok (Belarus)

P1_030 Low frequency noise in p-InAsSbP/n-InAs infrared photodiodes at 300K and 77K
N. Dyakonova (France), S.A. Karandashev (Russia), M.E. Levinshtein (Russia), B.A. Mavteev (Russia), M.A. Remennyi (Russia)

P1_032 Meta-atom interactions in strongly coupled systems
M. Wenclawiak (Austria), A.M. Andrews (Austria), G. Strasser (Austria), K. Unterrainer (Austria), J. Darmo (Austria)

P1_033 LO-phonon engineering of terahertz quantum cascade lasers
M.A. Kainz (Austria), S. Schönhuber (Austria), B. Limbacher (Austria), A.M. Andrews (Austria), H. Detz (Austria), G. Strasser (Austria), K. Unterrainer (Austria)

P1_034 Control of THz emission and absorption resonating with LO phonon energy by meal/semiconductor-composite materials
Y. Ishitani (Japan), H. Sakamoto (Japan), T. Aoki (Japan), K. Morita (Japan), B. Ma (Japan)

P1_035 THz emission and detection by quantum Faraday effect in silicon nanosandwich-structures
N. Bagraev (Russia), V. Khromov (Russia), L. Klyachkin (Russia), A. Malyarenko (Russia)

P1_036 Even-parity excited states in infrared emission, absorption and Raman scattering spectra of shallow donor centers in silicon
S. Pavlov (Germany), N. Abrosimov (Germany), Y. Astrov (Russia), V. Shuman (Russia), L. Ports (Germany), A. Lodygin (Germany), R. ZhiKavin (Russia), V. Shastin (Germany), K. Irmscher (Germany), A. Pohl (Germany), H.W. Hübers (Germany)

P1_037 The role of localisation and band mixing in direct-gap Ge(C,Sn) group-IV semiconductor alloys
C. Broderick (Ireland), M. Dunne (Ireland), A. Kirwan (Ireland), E. O’Halloran (Ireland), D. Tanner (Ireland), S. Schulz (Ireland), E. O’Reilly (Ireland)

P1_038 GaSbBi/GaSb quantum wells for Mid-Infrared: growth and characterization
O. Delorme (France), L. Ceruti (France), R. Kudrawiec (Poland), E. Luna (Germany), J. Kopaczek (Poland), M. Polak (Poland), M. Gladysiewicz (Poland), A. Trampert (Germany), E. Tournié (France), J.B. Rodríguez (France)

P1_039 Extended infrared photoresponse in room-temperature Si hyperdoped with Te
M. Wang (Germany), Y. Berencén (Germany), S. Prucnal (Germany), E. García-Hemme (Spain), R. Hübner (Germany), Y. Yuan (Germany), C. Xu (Germany), L. Rehbein (Germany), R. Böttger (Germany), R. Heller (Germany), H. Schneider (Germany), W. Skorupa (Germany), M. Helm (Germany), S. Zhou (Germany)

P1_040 Temperature-robust terahertz quantum cascade lasers using GeSiGe
T. Grange (Germany), G. Scalari (Switzerland), G. Capellini (Germany), D. Paul (UK), S. Birner (Germany), M. de Seta (Italy), M. Virgilio (Italy)

P1_041 Hybrid Longitudinal-Transverse Modes in Surface Phonon Polariton Systems
C. Gubbin (UK), S. de Liberato (UK)
P1_042
Generation of THz emission in Bloch Oscillations regime from SiC natural superlattices
V. Sankin (Russia), A. Andrianov (Russia), A. Petrov (Russia), A. Zakhar’In (Russia), S. NagalyUK (Russia), P. Shkreby (Russia), E. Kalinina (Russia)

P1_043
Semiconductor plasmonic resonances in the mid-IR range adjusted by thermal annealing
F. Gonzalez-Posada Flores (France), G. Pacot (France), M.J. Milla (France), F. Barho (France), M. Bomers (France), L. Cerutti (France), E. Tournié (France), T. Taliercio (France)

P1_044
Abel-Kaner-like cyclotron resonance in a two-dimensional electron system
I. Andreev (Russia), V. Muravev (Russia), V. Belyanin (Russia), I. Kukushkin (Russia)

P1_045
Spatial dispersion of the high-frequency conductivity and plasmon spectra of 2DEG subjected to high electric field in collisionless approximation.
V. Korotielev (Ukraine), V. Kochetap (Ukraine), L. Varani (France), S. DarylyUK (Germany)

P1_046
Ga metal nanoparticle GaAs quantum molecule complexes for Terahertz generation
S. Betti (Italy), F. Bossio Basset (Italy), D. Scarpellini (Italy), A. Fedorov (Italy), A. Bailllo (Italy), L. Esposito (Italy), M. Eiborg (Japan), T. Kuroda (Japan), A. Nemcsics (Hungary), L. Toth (Hungary), C. Manzoni (Italy), C. Vozi (Italy), S. Sanguinetti (Italy)

P1_047
Long-wavelength stimulated emission up to 20 μm due to suppression of Auger processes in HgTe/CdHgTe QWPs with quasi-relativistic energy spectrum
S. Morozov (Russia), V. Rumyantsev (Russia), M. Fadeev (Russia), A. Kadykov (Russia), V. Gavrilenko (Russia), N. Mikhailov (Russia), S. Dvoretskiy (Russia)

P1_048
Surface functionalization of plasmonic III-V semiconductor and plasmonic Ga-nanoparticles for enhanced molecular vibration spectroscopy (SERS/SEIRA)
M. Bomers (France), F. Nucciarelli (UK), T. Michel (France), A. Mezy (France), F. Barho (France), L. Cerrutti (France), F. Gonzalez-Posada (France), J.L. Pau (Spain), T. Taliercio (France)

P1_049
Intersubband polaritons kinetics with scattering by phonons under a resonant pumping
H. Gargoubi (Tunisia), M. Herria (Tunisia), S. Jazin (Tunisia)

P1_050
Ultrafast decay of photoluminescence from epitaxial and transferred monolayer graphene
T. Koyama (Japan), H. Imaeda (Japan), H. Kishida (Japan), K. Kawahara (Japan), H. Ago (Japan), J. Bao (China), T. Terasawa (Japan), W. Norimatsu (Japan), M. Kusunoki (Japan)

P1_051
Topological properties in single-wall carbon nanotube of any possible chiralities
R. Okuyama (Japan), W. Izumida (Japan), M. Eto (Japan)

P1_052
Zero-Dimensional Superconducting Side Contacts to Fully Encapsulated Carbon Nanotubes
A. Baumgartner (Switzerland), G. Abulizi (Switzerland), K. Watanabe (Japan), T. Taniguchi (Japan), C. Schoenenberger (Switzerland)

P1_053
Interaction between energetic ions and freestanding 2D materials
I. Shorubalko (Switzerland), J. Buchheim (Switzerland), R.M. Wyss (Switzerland), K. Choi (Switzerland), H.G. Park (Switzerland)

P1_054
Universal Conductance Fluctuation due to development of Weak Localization in graphene
D. Terasawa (Japan), A. Fukuda (Japan), A. Fujimoto (Japan), Y. Ohno (Japan), Y. Kanai (Japan), K. Matsumoto (Japan)

P1_055
Giant phonon-drag thermopower in extrinsic semiconducting single-wall carbon nanotubes near a subband edge
M. Tsousidou (Greece)

P1_056
Terahertz transitions in carbon nanotubes and graphene nanoribbons
M. Portnoi (UK), V. Saroko (Belarus), R. Hartmann (Philippines)

P1_057
Magnetoresistance of monolayer graphene with short-range disorder
Y. Vasilev (Russia), G. Vasil’eva (Russia), P. Alekseev (Russia), D. Smirnov (Germany), R. Haug (Germany)

P1_058
Graphite oxide nanoplatelets obtained from bamboo: Synthesis, properties and potential applications in electronics
J.J. Prias Barragán (Colombia), K. Gross (Colombia), H. Ariza Calderon (Colombia), P. Prieto Pulido (Colombia)
P1_062 Ordering phenomena in graphene like C-B-N 2D alloys - Monte Carlo studies
A. Jamróz (Abkhazia), J. Majewski (Poland)

P1_063 Terahertz photocurrents in graphene p-n junctions
Y. Vasilyev (Russia), G. Vasilieva (Russia), S. Novikov (Finland), S. Danilov (Germany), S. Ganichev (Germany)

P1_064 A carbon nanotube is more than a quantum box: Shaping a single electron with an axial magnetic field
A.K. Hüttel (Germany), M. Marganska (Germany), D.R. Schmid (Germany), A. Dimaichner (Germany), P.L. Stiller (Germany), C. Strunk (Germany), M. Grifoni (Germany)

P1_066 Disorder and Weak Localization near Charge Neutral Point in Ti-cleaned Single-Layer Graphene
A. Fujimoto (Japan), C. Perini (Us), D. Terasawa (Japan), A. Fukuda (Japan), Y. Harada (Japan), S. Sasa (Japan), E. Vogel (Us)

P1_067 Cyclotron resonance on higher-energy band of bilayer graphene
K. Takehana (Japan), Y. Imanaka (Japan), T. Kaneko (Japan), Y. Sekine (Japan), M. Takamura (Japan), H. Hibino (Japan)

P1_068 Towards scalable single-electron pumps in CVD graphene
J. Sui (UK), J. Alexander-Webber (UK), C. Smith (UK), S. Hofmann (UK), M. Connolly (UK)

P1_069 Theoretical study of the structural and electronic properties of B, C, N, O and F-impurities in non-passivated silicon nanowires
H. Leite Alves (Brazil), F.L.A. Cruz (Brazil), A.C.M. Carvalho (Brazil)

P1_070 Electroluminescence from nanocellulose transparent paper
N.M. Park (South Korea)

P1_071 Bandgap and optical properties of armchair and zigzag graphene quantum dots
P. Hawrylak (Canada), Y. Saleem (Canada), A. Delgado Gran (Canada), L. Szulakowska (Canada)

P1_072 Terahertz spectroscopy of individual carbon nanotube quantum dots
K. Yoshida (Japan), T. Tsuvugaya (Japan), F. Yajima (Japan), M. Shimizu (Japan), Y. Homma (Japan), K. Hirakawa (Japan)

P1_073 Lasing from a CdSe/(Cd,Mg)Se quantum well embedded into a microcavity in a strong and weak coupling regime
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Anisotropy of Selected Mechanical Properties of PbTe
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• These are available on Monday, Tuesday, Thursday and Friday from 13:00 from the Lunch Box area in Level 0

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• Visit Aigues-Mortes from 1 PM to 7 PM
• Visit the Pont du Gard from 1 PM to 7 PM
• Visit Nîmes from 1 PM to 7 PM
• Visit of the Pic St Loup Winery from 1 PM to 7 PM

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