### PROGRAMME | October 22nd, 2019

#### OPENING SESSION
- **9h15** *Lars Montelius*, Director-General INL

#### MORNING SESSION

#### KEYNOTE SPEAKER
- **09h30** *Frank Koppens*, ICREA Professor, ERC Starting Grant Award, ERC Consolidator Grant Award. Quantum Nano-Optoelectronics Group Leader at ICFO

#### INVITED TALK
- **10h15** *Rozema Lee*, Faculty of Physics. University of Viena
- **11h30** *António Costa*, Plasmons in graphene – superconductor heterostructures. INL

#### CONTRIBUTED TALK
- **10h45** *Asger Mortensen*, Professor & VILLUM Investigator program on Quantum Plasmonics. University of Southern Denmark

#### INVITED TALK
- **11h30** *Sara Núñez Sánchez*, Excitonic core-shell nanoparticles with plasmon-like response. University of Vigo
- **12h00** *William P. Wardley*, Strong coupling between Surface Exciton Polaritons and complementary optical modes in multicomponent thin film structures. INL
- **12h30** Lunch break

#### AFTERNOON SESSION

#### INVITED TALK
- **15h00** *Joachim von Zanthier*, Associate Professor and Group Leader of Quantum Optics and Quantum Information. Institute of Optics, Information and Photonics. Friedrich-Alexander University Erlangen-Nürnberg, Germany

#### CONTRIBUTED TALK
- **15h30** *Jana Nieder*, Temporal dynamics of hexagonal boron nitride single quantum emitters, INL
INVITED TALK
17h15 Lucas Thiel, Research in the Quantum Sensing Group, Department of Physics
University of Basel, Switzerland
Q. Sensing

INVITED TALK
17h45 Jorge Quereda Bernabeu, Nanotechnology Research Group, University of Salamanca
Q. Sensing

PROGRAMME | October 23rd, 2019

8h30 - 9h00 Registration

MORNING SESSION

INVITED TALK
9h15 Roser Valentí, Institute for Theoretical Physics
University of Frankfurt
Q. Topological Materials

INVITED TALK
9h45 Ramón Aguado, Theory of Quantum Materials and Solid State Quantum Technologies group leader at Materials
Science Institute of Madrid (ICMM)
ICMM - CSIC
Q. Topological Materials

CONTRIBUTED TALKS
10h15 Bruno Mera, Topologically protected quantization of work, IST - Instituto Superior Técnico
Q. Topological Materials

10h30 Marcel Claro, Topological insulator quantum dots grown by molecular beam epitaxy, INL
Q. Topological Materials

10h45 Gonçalo Catarina, Anomalous Kerr effect in two-dimensional massive Dirac materials, INL
Q. Topological Materials

11h00 Coffee break

INVITED TALK
11h30 Juan José García Ripoll, Instituto de Física Fundamental (IFF)
IFF Madrid - CSIC
Q. Information & Q. Simulation

INVITED TALK
12h00 Fabio Sciarrino, Associate Professor in the Department of Physics
University Sapienza
Q. Information & Q. Simulation
### PROGRAMME | October 23rd, 2019

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| 15h00 | **KEYNOTE SPEAKER**  
Jeanie Lau, Professor of Physics  
UC Riverside, California |
| 15h45 | **CONTRIBUTED TALK**  
Mario Amado, Competition between canted antiferromagnetic and spin-polarized quantum Hall states at v = 0 in single layer graphene on a ferrimagnetic insulator,  
University of Salamanca and University of Cambridge |
| 16h   | Alejandro Molina, Excitonic effects on the magneto-optical properties of ferromagnetic 2D materials, INL |
| 16h15 | **POSTER SESSION & Coffee Break**                                 |
| 17h15 | **INVITED TALK**  
Tatiana Rappoport, Associate professor at the Physics Institute of the Federal University of Rio de Janeiro  
University of Rio de Janeiro |
| 17h45 | **CONTRIBUTED TALK**  
Leonardo Novo, Quantum advantage from energy measurements, ULB Brussels |
| 18h   | Bruno Murta, Quantum Berry phase estimation, INL                     |
| 18h15 | Armando Pinto, Quantum Oblivious Keys for Secure Multiparty Computation, University of Aveiro |

### PROGRAMME | October 24th, 2019

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| 9h15  | **KEYNOTE SPEAKER**  
Samson Abramsky, Christopher Strachey Professor of Computing and a Fellow of Wolfson College  
University of Oxford |
| 10h00 | **INVITED TALK**  
Ugo dal Lago, Associate Professor at the University of Bologna  
University of Bologna |
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<td>Carlos Tavares, A dynamic logic for QASM programs, INESC TEC</td>
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<td>Ricardo Faleiro, Quantum Kolmogorov complexity of quantum states and correlations, IT Lisbon</td>
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<td>11h30</td>
<td>Artur García-Sáez, Barcelona Supercomputing Center</td>
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<td>12h00</td>
<td>Mikhail I. Vasilevskiy</td>
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<td>12h15</td>
<td>Henrique Silvério</td>
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<td>12h30</td>
<td>Pedro Cruz</td>
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<tr>
<td>12h45</td>
<td>Best Poster Presentation and Best contributed Talk by Joaquín Rossier, INL</td>
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<td>13h</td>
<td>Lunch break</td>
<td>Networking Opportunity</td>
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<tr>
<td>14h</td>
<td>Scaling Quantum Innovations: now and tomorrow</td>
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**CONFERENCE PROGRAMME | October 24th, 2019**

**Contributed Talks**

**Invited Talk**

**Closing Remarks & Award Session**

**Roundtable Discussion**

**Afternoon Parallel Sessions**

**Hands-on Quantum Computing**

**Communication Symposium**

**Why Science Communication Matters?**

**Invited Talk**

**Invited Talk**

*Limit of 30 participants upon confirmation by the organization.*