



TENTATIVE PROGRAM (as of 22/11/2021)

P: Plenary / K: Keynote lecture / I: Invited Lecture / O: Oral contribution



Tuesday (23/11/2021)

08:00 – 09:00: Registration

09:00 – 09:15: Opening Ceremony

09:15 – 09:30: **Adolfo Morais Ezquerro** (Basque Government, Spain)

The Basque Country IKUR Strategy 2030 in Quantum Technologies

09:30 – 10:15: **Ignacio Cirac** (Max Planck Institute of Quantum Optics, Germany) P

Quantum computers and many-body systems

10:15– 11:15: *Coffee Break / Poster Session / Exhibition*

11:15 – 12:00: **Tommaso Calarco** (Forschungszentrum Jülich, Germany) P

The European Quantum initiative: from a flagship to a fleet

12:00 – 12:45: **Andrea Ferrari** (Cambridge Graphene Centre, University of Cambridge, UK) P

The Graphene Flagship: The First 10 years

12:45 – 13:00: **Yolanda de Miguel** (Tecnalia, Spain)

Nanotechnology at the Basque Research and Technology Alliance (BRTA)

13:00 – 14:00: *Cocktail lunch (offered by Imagenano2021)*

14:00 – 14:30: *Poster session*

Chairperson: **Clivia M. Sotomayor** (ICN2 / ICREA, Spain)

14:30 – 15:00: **Antoine Reserbat-Plantey** (ICFO, Spain) K

Quantum nanophotonics with 2d materials

15:00 – 15:15: **Saül Garcia-Orrit** (Fundación IMDEA Nanociencia, Spain) O

Cove-edged nanographenes as a potential optical-gain media for lasing

15:15 – 15:30: **Gonzalo Álvarez Pérez** (University of Oviedo, Spain) O

Planar refraction and lensing of nano-light in an anisotropic van der Waals material

15:30 – 15:45: **Virginia Martínez-Martínez** (University of the Basque Country, Spain) O

Nonlinear Optics through optimal dye encapsulation into zeolitic nanochannels

15:45 – 16:00: **Lucio Litti** (University of Padova, Italy) O

Surface Enhanced Raman Scattering, from labeling toward an analytical technique

16:00 – 17:00: *Coffee Break / ePoster Session / Exhibition*

Chairperson: **Lucio Litti** (University of Padova, Italy)

17:00 – 17:30: **Clivia M. Sotomayor** (ICN2 / ICREA, Spain) K

Phononic Circuits: an Optomechanics-Mediated Demonstration

17:30 – 18:00: **Pablo Albella** (Universidad de Cantabria, Spain) K

Controlling light and heat at the nanoscale



Wednesday (24/11/2021)

Chairperson: **Lluis F. Marsal** (URV, Spain)

- 09:00 – 09:20: **Daniel Ramos** (IMN-CSIC, Spain) I
ThermoMechanical Imaging and Characterization of Single Bacteria Cells
- 09:20 – 09:35: **Sarah De Marchi Lourenço** (CINBIO, Universidade de Vigo, Spain) O
Plasmonic nanorattles for in situ SERS imaging of pH in microbial colonies
- 09:35 – 09:50: **Sara Gullace** (Université de Strasbourg- ISIS, France) O
Towards Label-Free SERS Detection: Universal Fabrication of Highly Efficient Plasmonic platforms

09:50– 11:00: *Coffee Break / Poster Session / Exhibition*

Chairperson: **Daniel Ramos** (IMN-CSIC, Spain)

- 11:00 – 11:30: **Lluis F. Marsal** (URV, Spain) K
Fine-tuning of the nanoporous alumina photonic stopbands by using non-conventional pulse anodization
- 11:30 – 11:50: **Torsten Richter** (Raith GmbH, Germany) I
Advanced FIB-Patterning Strategies for seamless Photonic Devices
- 11:50 – 12:05: **Nerea Zabala** (UPV/EHU, Spain) O
Spintronic-plasmonic antenna metasurfaces for molecular sensing
- 12:05 – 12:20: **Bruno Candelas** (Materials Physics Center, Spain) O
Plasmon-exciton coupling and charge transfer plasmons in metallic cluster dimers
- 12:20 – 12:35: **Antton Babaze** (Materials Physics Center, Spain) O
Effect of Electronic Coupling in the Optical Response of Plasmon–Exciton Systems
- 12:35 – 12:50: **Mattin Urbieto** (UPV/EHU, Spain) O
Unveiling atomic-scale features in plasmonic nanoparticles using electron beams

12:50 – 14:30: *Lunch Break*

Chairperson: **Jose A. Sánchez Gil** (IEM-CSIC, Spain)

- 14:30 – 15:00: **Alberto G. Curto** (TU/e - Eindhoven University of Technology, The Netherlands) K
Chiral Semiconductor Nanophotonics
- 15:00 – 15:30: **Ruben Esteban** (CFM-CSIC, Spain) K
Strong coupling in nanophotonics
- 15:30 – 15:50: **Luis Froufe** (University of Fribourg, Switzerland) I
Recognizing the face of wavefunctions
- 15:50 – 16:20: **Niek van Hulst** (ICREA - ICFO, Spain) K
What near-field interference tells us

16:20 – 17:05: *Coffee Break / ePoster Session / Exhibition*

Chairperson: **Ruben Esteban** (CFM-CSIC, Spain)

- 17:05 – 17:35: **Javier García de Abajo** (ICREA - ICFO, Spain) K
Control of Light at the Atomic Scale: Fundamentals and Applications
- 17:35 – 18:05: **Jose A. Sánchez Gil** (IEM-CSIC, Spain) K
Bound States in the Continuum in all-dielectric resonant metasurfaces
- 18:05 – 18:25: **Giorgio Volpe** (University College London, UK) I
Controlling Light Generation in Disordered Fractal Networks of Nanostructures



Thursday (25/11/2021)

Chairperson: **Javier Aizpurua** (CFM-CSIC, Spain)

09:00 – 09:30: **Yossi Paltiel** (The Hebrew University of Jerusalem, Israel)

The Chiral Induced Spin Selectivity(CISS) Effect

K

09:30 – 10:00: **Paolo Vavassori** (CIC NanoGUNE, Spain)

Amplification of Magneto-optical Activity with Dark Plasmons

K

10:00– 11:00: Coffee Break / Poster Session / Exhibition

Chairperson: **Yossi Paltiel** (The Hebrew University of Jerusalem, Israel)

11:00 – 11:30: **Javier Aizpurua** (CFM-CSIC, Spain)

Molecular optical spectroscopy and microscopy at the atomic scale

K

11:30 – 11:45: **Jiahua Duan** (University of Oviedo, Spain)

Optical topological transition: enable canalization and control of highly confined polaritons

O

11:45: Closing