



INC YOUNG RESEARCHERS MEETING

(La Cristalera, Miraflores de la Sierra, December 13th, 2024)

Program

9:30 – 9:45 Welcoming session

9:45 – 10:15 Session I (Chair: Celia Polop)

9:45-10:15 **Invited speaker: María Varela** " Atomic resolution studies of nanomaterials in the electron microscope"

10:15 – 11:10 “Chema Gómez-Rodríguez” awards to the best paper

10:20-10:45 **Angel Ibabe Avilés**, “Heat Dissipation Mechanisms in Hybrid Superconductor–Semiconductor Devices Revealed by Joule Spectroscopy”

10:45-11:10 **Carlos Sebastián Vicente**, “Photovoltaic charge lithography on passive dielectric substrates using active Fe:LiNbO₃ stamps”

11:10 – 11:20 Physics Students Awards

11:20 – 12:20 Coffee break + Poster Session I

12:20 – 13:30 Session II (Chair: Mercedes Hernando)

12:20 **Nicol Caetano Zeballos**, “Unlocking the Potential of Gold Nanostars: Enhanced Heat Delivery through Geometry Optimization”

12:40 **Alejandro Díez Martínez**, “New insights into tobacco mosaic virus: stability, disassembly and uncoating”

13:00 **Antonio Miguel Bosch Fernandez**, “Adsorption-driven deformation and footprints of the RBD proteins in SARS-CoV-2 variants on biological and inanimate surface”

13:20 **Pablo Tuero**, “Unraveling different contributions to spin orbit coupling in superconductor/ferromagnet hybrids”

13:40 – 15:00 Lunch

15:00 – 16:00 Session III (Chair: Rafael Sánchez)

15:00 **Pablo Vaquer de Nieves**, “Transport of exciton-polaritons on halide perovskites”

15:20 **Jose Antonio Moreno**, “The feedback driven atomic scale Josephson microscope”

15:40 **Jesús Díaz-Sánchez**, “Nanoscale nucleation and growth of sodium and lithium anodes in zero-excess solid-state batteries”

16:00 – 17:00 Coffee break + Poster Session II

17:00 – 18:00 Session IV (Chair: Carlos Antón Solanas)

17:00 **Liyan Ming**, “Luminescence-enabled three-dimensional temperature mapping”

17:20 **José Balduque Picazo**, “Scattering theory of thermal and bipolar thermoelectric diodes”

17:40 **Jorge Vega Martín**, “Proton Transport through Peptide Nanotubes: Insights from Computer Simulations”

18:00 Wrap up and closing