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## **Special Session**

### **Nanophotonics: from design to applications**

#### **Session Organizers:**

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#### **Session Abstract:**

Nanophotonics, where light-matter interactions take place on wavelength and subwavelength scales, allow the exploration of new optical phenomena offering superior performance or completely new functionalities in photonic devices.. Nanophotonics represents one of the emerging enabling technologies of highest potential to impact across a wide range of challenging application encompassing a wide variety of topics, including metamaterials, plasmonics, high resolution imaging, quantum-nanophotonics and functional photonic materials. This special session will focus on the fundamental physics of nanophotonic interactions, design, nanofabrication and nanopatterning methods and applications of nanophotonics structures and devices. Scientists and industrial partners involved in these topics are welcome keeping in mind that the main idea is to share and discuss advances and innovations for the community.

**The special session will include, but will not be exclusively limited to, the following topics:**

**Nano-Engineered Photonics Materials, Plasmonics, Metamaterials, Nanophotonic Devices, Nanoscale Quantum Optics, Nanoscale Functional Imaging/sensing, Nanobiophotonics, Non-linear effects in nano-structures, Photovoltaics applications, Integrated nano-device/circuit, Modeling for nano-photonics**