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Advances in Quantum Science

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Deadline for manuscript submissions:
closed (30 September 2021)

Message from the Guest Editor

Dear Colleagues,

Quantum sciences are deeply rooted in suitably-tailored physical substrates. Materials for quantum science range from quantum computing (semiconductor host of quantum dots, superconductors, defects in semiconductors), to quantum communications (single-photon sources and detectors, respectively), to quantum metrology (absolute photon counters), and quantum sensors (solid state spins, superconductors and SQUIDs, optomechanics).

Conversely, development of materials can in turn take advantage of quantum science, such as material design by quantum computers and quantum ellipsometry just to mention a few examples. Aside from traditional investigation methods, novel design methods involve deep and machine learning, quantum computers, and HPC. This Special Issue looks at covering both the development of materials to boost quantum sciences, and quantum sciences to empower the search and refinement of materials.

The field is rapidly advancing into new areas of discovery. It is my pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Prof. Dr. Enrico Prati
Guest Editor

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Message from the Editor-in-Chief

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