

## Special Issue

# Fundamental and Applied Aspects of the Physics in Low-Dimensional Systems

### Message from the Guest Editor

We invite authors to contribute original research articles on the fundamental and applied aspects of the physics of low-dimensional systems, two-dimensional electron systems, the quantum Hall effect, quantum dots, quantum wires, graphene, thin films, novel nanoscale devices, etc. Both theoretical and experimental contributions are invited. The aim of the Issue is to provide an overview of the current research of the fundamental and applied aspects of low-dimensional systems that show a large variety of scientifically fascinating and technologically important phenomena. Potential topics include but are not limited to:

- Two-dimensional electron gas and topological insulators;
- Integer and fractional quantum Hall effects;
- Spin-orbit interaction and spin-related phenomena;
- Quantum dots, wires, and mesoscopic systems;
- Nanostructures (graphene, carbon nanotubes, etc.);
- Thin film materials;
- Characterizations of nanomaterials, including theoretical and numerical methods;
- New frontiers in low-dimensional systems.

See more information in  
<https://mdpi.com/si/168316>

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### Guest Editor

Prof. Dr. Orion Ciftja

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### Deadline for manuscript submissions

closed (20 December 2024)



## Nanomaterials

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## About the Journal

### Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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### Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

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