

## Special Issue

# Opto-Thermo-Mechanical Interactions in Nano-Objects and Metasurfaces

### Message from the Guest Editor

The interplay among optics, thermics and mechanics is of paramount importance for technological applications. For instance, in devices exploiting electromagnetic radiation, such as antennas, it is crucial to control the working temperature in order to avoid overheating or system damages. On the other hand, light can be exploited to apply forces and deformations at the micro- and nanoscales. Metallic and dielectric nano-objects and metasurfaces proved very useful to concentrate light and to enhance the electromagnetic field. These geometries are the perfect playground where the opto-thermal and the optomechanical interactions may be sought. The opto-thermo-mechanical interactions in nano-objects and metasurfaces still pose puzzling questions, and several challenges remain to be explored for the design and realization of next-generation optical devices. The scope of this Special Issue is to tackle recent and promising achievements in the field of linear and nonlinear opto-thermo-mechanical interactions in nano-objects, metamaterials and metasurfaces of nanostructures. We are also open to new materials that can be patterned and exploited for nanostructures engineering.

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### Guest Editor

Dr. Marco Gandolfi

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### Deadline for manuscript submissions

closed (20 September 2023)



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*Optics* (ISSN 2673-3269) aims at establishing *Optics* as a leading journal for publishing high impact fundamental research and applications in optics field with a fast processing time and high quality service. The journal particularly welcomes both theoretical (simulation) and experimental research within our journal's scope. We encourage scientists to publish their experimental and theoretical results in as much detail as possible. So, there is no restriction on the length or pages of the papers. The full experimental details must be provided so that the results can be reproduced. Electronic files and software regarding the full details of the calculation or experimental procedure, if unable to be published in a normal way, can be deposited as supplementary electronic material.

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