



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

Guest Editor:

**Dr. Marco Gandolfi**

Department of Information Engineering, Università degli Studi di Brescia, Brescia, Italy

Deadline for manuscript submissions:

**closed (20 September 2023)**

### 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.





an Open Access Journal by MDPI

## Editors-in-Chief

### Prof. Dr. Costantino De Angelis

Department of Information Engineering, University of Brescia, 25123 Brescia, Italy

### Prof. Dr. Thomas Seeger

Institut Fluid- und Thermodynamik, Lehrstuhl für Technische Thermodynamik, Universität Siegen, Paul-Bonatz-Straße 9-11, 57076 Siegen, Germany

## Message from the Editorial Board

*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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within [ESCI \(Web of Science\)](#), [Scopus](#), [EBSCO](#), and [other databases](#).

**Rapid Publication:** manuscripts are peer-reviewed and a first decision is provided to authors approximately 22.1 days after submission; acceptance to publication is undertaken in 6.6 days (median values for papers published in this journal in the second half of 2025).

## Contact Us

*Optics* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/optics](http://mdpi.com/journal/optics)  
[optics@mdpi.com](mailto:optics@mdpi.com)