

## Special Issue

# Ultrafast Nonlinear Properties of Near-Zero Index Media and Metamaterials Out of Equilibrium

### Message from the Guest Editors

Currently, there is a boom in studies on nanophotonics structures, as these systems possess a very high potential for integrated, multi-purpose optical devices, where sources, manipulation, and detection techniques of classical and quantum light can occur in a single chip. These devices may deliver impactful results in different fields of physics, such as communications, sensing, imaging, and automotive, to name a few. A very successful aspect of nanophotonics structures concerns their extreme versatility that allows the on-demand tailoring of their properties, such as emission, absorption, propagation, and storage of light, in a virtually arbitrary way. Among this vast and thriving research field, metamaterials have been the subject of extensive research in the last decades, because of their unique features in terms of local field enhancement and nonlinear properties at the ultrafast scale. In addition, this Special Issue aims at representing a reference for an emergent and active community, with the ultimate goal of providing inspiration for future research and collaborations within this community.

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### Guest Editors

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### Deadline for manuscript submissions

closed (20 April 2020)



## Applied Sciences

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### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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