



an Open Access Journal by MDPI

Hyperbolic Metamaterials: Novel Phenomena and Applications

Guest Editors:

Dr. Igor Smolyaninov

Department of Electrical & Computer Engineering, University of Maryland, College Park, MD 20742, USA

Prof. Dr. Vera Smolyaninova

Department of Physics, Astronomy and Geosciences, 8000 York Road, Towson, MD 21252, USA

Deadline for manuscript submissions: closed (10 October 2018)

Message from the Guest Editors

Dear Colleagues,

Hyperbolic metamaterials are extremely anisotropic uniaxial materials, which behave like a metal in one direction and like a dielectric in the orthogonal direction. Hyperbolic metamaterials were originally introduced to overcome the diffraction limit of optical imaging. Soon thereafter, it was realized that hyperbolic metamaterials demonstrate a number of novel phenomena resulting from the broadband singular behavior of their density of photonic states. These novel phenomena and applications include super resolution imaging, new stealth technologies, enhanced quantum-electrodynamic effects, thermal hyperconductivity, superconductivity, and interesting gravitation theory analogues. This Special Issue will be devoted to the fast experimental and theoretical progress in this fascinating field.

Dr. Igor Smolyaninov Prof. Dr. Vera Smolyaninova *Guest Editors*



Specialsue





an Open Access Journal by MDPI

Editor-in-Chief

Message from the Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy 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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

Contact Us

Applied Sciences Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/applsci applsci@mdpi.com X@Applsci