Special Issue

Optical Nanoantennas

Message from the Guest Editor

Antennas are important elements of wireless information communication technologies, along with sources of electromagnetic radiation and their detectors. They are at the heart of modern radio and microwave frequency communications technologies and refer to devices converting electricomagnetic currents into propagating waves and vice versa. Recently, the concept of antennas has been extended to the optical domain resulting in development of optical nanoantennas, which transmit and receive optical signals based on nanoscale objects. The ultimate goal is to achieve high efficiency in detection and directivity of the transmitting signals for all-optical. The functionality of a nanoantenna is two-fold: i) to transform the nearfield of a quantum emitter into freely propagating optical radiation, and ii) convert the incident radiation into a strongly confined near-field. This Special Issue focuses on the latest research and development of optical nanoantennas and their applications, including linear, nonlinear, chiral, plasmonic, all-dielectric, and strongcoupled structures.

Guest Editor

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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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