



Special Session: Active Metamaterials and Metasurfaces

Organizer: Lea Beilkin

Metamaterials are artificially designed structures, the properties of which are determined by the collective dynamics of their unit cells, and can be tailored to generate unconventional wave response within the structure. Recently, the notion of actively-controlled metamaterials has emerged as an approach to push forward the limits of passive designs, and to achieve advanced waveguiding performance. The aim of this session is to bring together novel research on Metamaterials and Metasurfaces with actively-modulated, tunable and reconfigurable properties, for diverse applications in electromagnetic, photonic, acoustic and elastic systems. This includes non-Hermitian, non-reciprocal and topological metamaterials, time-varying, space-time modulated systems, real-time reprogrammable and feedback-based media, and more.