

Abstract Submitted
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Linear and nonlinear optical devices based on plasmonic negative index metamaterials. IGOR SMOLYANINOV, IDAN MANDELBAUM, LOUISE SENGUPTA, BAE Systems, YU-JU HUNG, EHREN HWANG, CHRISTOPHER DAVIS, University of Maryland — Fabrication of three-dimensional photonic metamaterials faces numerous technological challenges. On the other hand, many new concepts and ideas in the optics of metamaterials may be tested much easier in two spatial dimensions using planar optics of surface plasmon polaritons. In this talk we will describe applications of plasmonic negative index metamaterials in various novel microscopy, waveguiding and switching devices.

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