

From Metamaterials to Metadevices

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Abstract- We define metadevices as devices with all sorts of useful functionalities that can be achieved by structuring of materials responsive to external stimuli on a scale smaller than the operational length.

We report an overview on our recent work on developing photonic and microwave electromagnetic metadevices, in particular metadevices exploiting phase change media, electrostatic and opto- mechanical forces, coherent effects and nonlinear and quantum response of superconductors.