

Abstract Submitted
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Bistable nonlinear metamaterials SINHARA SILVA, JIANGFENG ZHOU, University of South Florida, UNIVERSITY OF SOUTH FLORIDA TEAM — In this work, we demonstrate a nonlinear metamaterial with remotely tunable spectrum response at microwave frequency regime. Using a double split-ring resonator (DSRR) design, the resonance frequency of the outer ring can be tuned by an external pump signal. We experimentally demonstrate that the DSRR exhibits power and frequency dependent broadband tunability of the resonance frequency. More importantly, the DSRR shows bi-stability with distinct transmission levels, where the transition between bi-states can be controlled by the impulses of pump signal.

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