Experimental observation of amplification death via asymmetric gain

MAHBOOBEH CHITSAZI, SAMUEL FACTOR, JOSEPH SCHINDLER, HAMIDREZA RAMEZANI, FRED ELLIS, TSAMPIKOS KOTTOS, Department of Physics, Wesleyan University, Middletown CT-06459, USA — The amplification action of two coupled RLC circuits is experimentally controlled via a spatially inhomogeneous gain. Specifically we have demonstrated that increasing the overall gain of an unstable RLC circuit can result in its stabilization. This counterintuitive phenomenon has its roots in managing impedance matching and thus can be applicable to a variety of wave systems.