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Gyro-active structures: Unidirectional Reflectionless Isolators and Perfect Absorbers[1] JUNSIK LEE, Wesleyan University, ZIN LIN, Harvard University, HAMIDREZA RAMEZANI, TSAMPIKOS KOTTOS, Wesleyan University — We propose a novel circuit architecture that consists of gyrotropic elements sandwiched between two judiciously balanced gain and loss constituents. These structures exhibit unique transport characteristics stemming from a generalized parity-time ($\mathcal{P}\overset{\circlearrowleft}{\mathcal{T}}$)-symmetry. Some of these features include unidirectional reflection-less isolation and perfect absorption as well as asymmetric Anderson localization when disorder is introduced. Realizations as well as applications within the framework of electronic and photonic circuitry are discussed.

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