

# SELECTED TOPICS IN QUANTUM ELECTRONICS

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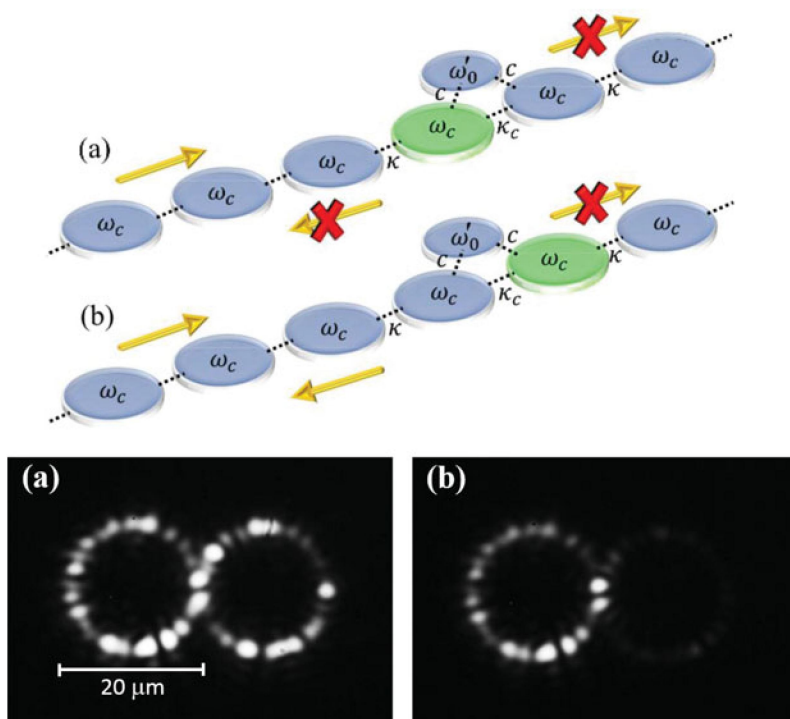
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ISSUE ON PARITY-TIME PHOTONICS



(Upper) Schematic of parity-time (PT) symmetric Fano coupled disk resonators. The PT dimer is composed of a passive (purple) disk and a lossy (green) disk. This dimer is coupled to the passive micro-disk with resonance frequency  $\omega_0'$ . This triangle is embedded in a chain of passive disk resonators. (a) At the critical value of loss, transmission and reflection from the lossy side tends to zero resulting in the unidirectional perfect absorber mode while (b) there is a perfect reflection from the opposite side. (Hamidreza Ramezani *et al.*, article number 5000706)

(Lower) Intensity profiles collected through scattering off of coupled microring resonators. (a) Evenly pumped microrings: the supermodes circulate in both rings. (b) a PT symmetric microring arrangement: the mode resides exclusively within the gain cavity. (Hossein Hodaei *et al.*, article number 1500307)

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