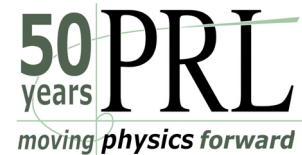
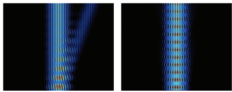


Shown are simulations of an optical beam propagating in a " PT symmetric" lattice described by a complex, (i.e., non-Hermitian) Hamiltonian; although complex, the Hamiltonian has real eigenvalues because of its symmetry under simultaneous parity and time-reversal operations. The image on the right shows propagation in a conventional optical lattice, while the left image shows the effect of switching on the imaginary part of the lattice potential; the beam splits in two and double refraction occurs at an angle of about one degree. See article 103904.



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