

# Stochastic Bragg scattering in PT-symmetric optical lattices

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A study on the propagation of a partially coherent beam through a non-Hermitian optical lattice is presented. As expected, exotic phenomena is obtained induced by the depart from an Hermitian environment. On the other hand, by including fluctuations one finds that these exotic phenomena are modified as usually happens. However, the non-Hermitian character of the lattice also plays an important role such as to induce correlations into a poorly coherent beam up to the point that it becomes essentially fully correlated.