Weak and strong localization of ultra-cold atoms: breaking time reversal symmetry

Alain Aspect^{*1}

¹Laboratoire Charles Fabry de l'Institut d'Optique (LCFIO) – Institut d'Optique Graduate School (IOGS) – France

Abstract

Anderson localization is one of the difficult problems of condensed matter physics that can be simulated with ultra-cold atoms. After recalling some results about 1D and 3D Anderson localization, and Coherent Back Scattering (the effect responsible for weak localization), I will describe a new experiment showing how breaking time reversal symmetry affects localization.

*Speaker