



SEMINAIRE ISMO

Daniel FINKELSTEIN-SHAPIRO

Lund University, Sweden

Optical Response of Dissipative Fano Systems

The Fano model and its distinctive asymmetric lineshape have enjoyed tremendous success in explaining spectra in a number of areas ranging from atomic physics to mesoscopic systems. It arises from the interference between two excitation pathways in a system comprised of a two-level system coupled to a continuum.

The theory laid in 1961, however, was formulated in a scattering non-dissipative framework. As such, it is not suitable for nanostructures where coupling to an environment opens relaxation pathways to the ground state.

In this talk, we will give an overview of the Fano theory in open quantum systems and present the most salient results including new spectroscopic protocols to probe system parameters inaccessible from other spectroscopies and new high field effects not predicted before.

Mardi 15 mars à 11h
Bât 351 – 2^{ème} étage (Bibliothèque)
Université Paris-Sud - 91405 ORSAY Cedex