Eigenvalues and resonances created by energy-level crossings

Setsuro Fujiie

Ritsumeikan University

We study a one-dimensional semiclassical Schrödinger operator with a 2×2 matrix-valued potential. Assuming that the anti-diagonal elements are of small order and that the two diagonal principal potentials cross to each other, we observe, in several settings, the effect by this crossing in the asymptotic distribution of eigenvalues and quantum resonances. This talk will be based on the collaborations with Marouane Assal, André Martinez and Takuya Watanabe.