Quantum Physics

Fractal Weyl law behavior in an open, chaotic Hamiltonian system

Jordan A. Ramilowski, S. D. Prado, F. Borondo, David Farrelly

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We numerically show fractal Weyl law behavior in an open Hamiltonian system that is described by a smooth potential and which supports numerous above-barrier resonances. This behavior holds even relatively far away from the classical limit. The complex resonance wave functions are found to be localized on the fractal classical repeller.

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