

Huard, D.; Kröger, H.; Melkonyan, G.; Moriarty, K. J. M.; Nadeau, L. P.

What does quantum chaos mean? (English) [Zbl 1067.81044](#)

Ladde, G.S.(ed.) et al., Dynamic systems and applications. Volume 4. Proceedings of the 4th international conference, Morehouse College, Atlanta, GA, USA, May 21–24, 2003. Atlanta, GA: Dynamic Publishers (ISBN 1-890888-00-1/hbk). 640-646 (2004).

Summary: We discuss how the concept of the quantum action can be used to characterize quantum chaos. As an example we study quantum mechanics of the inverse square potential in order to test some questions related to quantum action. Quantum chaos is discussed for the 2-D hamiltonian system of harmonic oscillators with anharmonic coupling.

For the entire collection see [\[Zbl 1054.34001\]](#).

MSC:

[81Q50](#) Quantum chaos

[37N20](#) Dynamical systems in other branches of physics (quantum mechanics, general relativity, laser physics)