

Meeting: 1003, Atlanta, Georgia, SS 30A, AMS Special Session on Analysis Problems in Modern Physics, I

1003-37-1325 **S. Jitomirskaya** (szhitomi@math.uci.edu), Department of mathematics, University of California, Irvine, CA 92697, **D. A. Koslover** (dkoslove@math.uci.edu), Department of mathematics, University of California, Irvine, CA 92697, and **M. S. Schulteis*** (melinda.schulteis@cui.edu), 1530 Concordia West, Irvine, CA 92612. *Continuity of the Lyapunov exponent for analytic quasiperiodic cocycles.*

It is known that the Lyapunov exponent is not continuous at certain points in the space of continuous quasiperiodic cocycles. We show that it is continuous in the analytic category. Our applications include continuity of the Lyapunov exponent of quasiperiodic Jacobi matrices in various parameters. These results have important applications in the study of quantum dynamics. In particular, continuity of the Lyapunov exponent in energy is an important ingredient in the proof of dynamical localization for a family of operators of magnetic origin. (Received October 04, 2004)