1145-81-3021   **Svetlana Jitomirskaya** and **Xiaowen Zhu*** (`5xiaowz@uci.edu`), 1421 Verano Place, Irvine, CA 92617. *A short proof of Anderson localization for the 1-d Anderson model.*

The proof of Anderson localization for 1D Anderson model with arbitrary (e.g. Bernoulli) disorder, originally given by Carmona-Klein-Martinelli in 1987, is based on the Furstenberg theorem and multi-scale analysis. This topic has received a renewed attention lately, with two recent new proofs, exploiting the one-dimensional nature of the model. At the same time, in the 90s it was realized that for one-dimensional models with positive Lyapunov exponents some parts of multi-scale analysis can be replaced by considerations involving subharmonicity and large deviation estimates for the corresponding cocycle, leading to nonperturbative proofs for 1D quasiperiodic models. Here we present a proof along these lines, for the Anderson model. We also include a proof of dynamical localization based on the uniform version of Craig-Simon that works in high generality and may be of independent interest. It is a joint work with S. Jitomirskaya. Our entire proof of spectral localization fits in three pages and we expect to present almost complete detail during the talk. (Received September 26, 2018)