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Escape of Mass on Hilbert Modular Varieties

Let F be a number field, $G = PGL(2, F_\infty)$, and K be a maximal compact subgroup of G. We discuss eliminating the possibility of escape of mass for measures associated to Hecke-Maass cusp forms on Hilbert modular varieties, and more generally on congruence locally symmetric spaces covered by G/K, hence enabling its application to the non-compact case of the Arithmetic Quantum Unique Ergodicity Conjecture. This generalizes a result of Soundararajan in 2010 eliminating escape of mass for congruence surfaces, including the classical modular surface $SL(2, \mathbb{Z})\backslash\mathbb{H}^2$, and follows his approach closely.

This talk is based on joint work with Lior Silberman.