M.-P. Gomez-Aparicio

Institut de Mathématiques de Jussieu, 175 rue du Chevaleret, 75013 Paris, France
gomez@math.jussieu.fr

Sur la Propriété (T) Tordue par un Produit Tensoriel

We consider tensor products of unitary representations by irreducible non-unitary finite dimensional representations of topological groups to define a property that is a strengthening of Kazhdan's Property (T). We use the uniform decay of the matrix coefficients of unitary representations, to show that for most of the real semi-simple Lie groups having Kazhdan's Property (T), any finite dimensional irreducible representation ρ of G, is isolated among representations of the form $\rho \otimes \pi$, where π ranges over the irreducible unitary representations, in a sense to be made precise.

Keywords: Unitary representation, matrix coefficients, K-types.

MSC: 22D10, 22D12, 22E46.