Igor KRASOVSKY
Imperial College, London
U.K.

On spectra of quasiperiodic matrices

Abstract:

We will discuss the well-known quasiperiodic operator: the almost Mathieu operator in the critical case. We give a new and elementary proof (the first proof was completed in 2006 by Avila and Krikorian by a different method) of the fact that its spectrum is a zero measure Cantor set. We furthermore prove a conjecture going back to the work of David Thouless in 1980s, that the Hausdorff dimension of the spectrum is not larger than 1/2. This is a join work with S. Jitomirskaya.