
TRISTAN FREIBERG, University of Waterloo

Poisson spacings between sums of two squares

Extending work of Connors–Keating and Smilansky, we formulate an analog of the Hardy–Littlewood prime k -tuple conjecture for sums of two squares, and show that it implies that the level spacings in the sequence of sums of two squares are Poisson distributed. We also give numerical evidence for the conjecture and its implications. This is joint work with Pär Kurlberg and Lior Rosenzweig.