Speaker: Alex Kontorovich

Title: Geometry and Arithmetic of Crystallographic Packings

Abstract: In joint work with Kei Nakamura, we formulate a precise conjecture (the SuperPAC) on the nature of sphere packings having all radii reciprocals of integers and arising as limit sets of hyperbolic reflection groups. A consequence of the conjecture is that there are only finitely many "maximal" such packings, in all dimensions. We prove the conjecture in several families.