

abstract

ANALYTIC AND GEOMETRIC NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

A bounded Apollonian circle packing (ACP) is an ancient Greek construction which is made by repeatedly inscribing circles into the triangular interstices in a Descartes configuration of four mutually tangent circles. Remarkably, if the original four circles have integer curvature, all of the circles in the packing will have integer curvature as well. In this talk we give a proof of a conjecture of Graham, Lagarias, Mallows, Wilkes, and Yan that the integers appearing as curvatures in a bounded integer ACP have positive density. This is joint work with J. Bourgain.