MATH/STAT COLLOQUIUM

Apollonian circle packings, integers, and higher-dimensional sphere packings

Apollonian circle packings are certain circle configurations in which the circles do not intersect but may be tangent to each other. What do Apollonian circle packings have to do with integers? Under certain conditions, each circle in an Apollonian circle packing has a bend (1/radius) that is an integer! When all the bends are integral, which integers appear as bends? It turns out that this is a hard question to answer. However, it is easier to answer a similar question for analogous higher-dimensional sphere packings.

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Tuesday, March 22

4:15pm Refreshments
4:30pm Lecture

SC 199