Three-point bounds for sphere packing

David de Laat

02.12.22 - 11:30

Abstract

In this talk I will discuss new three-point bounds for the sphere packing and lattice sphere packing problems. I will explain how we derive these bounds and how the sphere packing three-point bound can be used to obtain improvements over the Cohn-Elkies linear programming bound. I will also discuss an open problem related to a noncompact symmetry group of the lattice three-point bound. This is joint work with Henry Cohn and Andrew Salmon.