## Rigidity of spherical codes, and kissing numbers Abhinav Kumar (MIT)

## Abstract

I will report on joint work with Cohn, Jiao and Torquato, in which we studied rigidity or jamming properties of spherical codes. In particular, we described a linear programming algorithm to detect whether a code is infinitesimally rigid (i.e. cannot be deformed without decreasing the minimal distance), and several examples coming from kissing configurations in low dimensions. We used a variant of these techniques to improve the kissing numbers in dimensions 25 through 31.