New bounds for spherical finite distance sets
David de Laat, ICERM / MIT

In this talk I will discuss two new approaches to obtaining upper bounds on the size of spherical finite distance sets. The first approach is based on a generalization of the Delsarte and Bachoc-Vallentin bounds. The second is based on an adaptation of the Lasserre hierarchy to packing problems. To perform computations symmetry reduction is essential, and for this I will discuss a connection to the harmonics of the Stiefel manifold.

Joint work with Fabrício Machado, Fernando Oliveira, and Frank Vallentin.