



Speaker: Jeremy Miller
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Tuesday, September 26, 2017

2:30 PM

258 Hurley Hall

Title: Improved stable ranges in representation stability

Abstract:

Representation stability is a stability pattern generalizing homological stability to contexts with group actions. In joint work with Thomas Church, Rohit Nagpal, and Jens Reinhold, we give a new approach to proving representation stability results that dramatically improves almost all known stable ranges for sequences of symmetric group representations. In particular, we prove a linear stable range for the cohomology of ordered configuration spaces and a quadratic stable range for the homology of congruence subgroups of general linear groups. Previously, the best known stable ranges were exponential.