

OPTIMIZATION WITH POLYNOMIALS IN DIVERSE FORMS

Speaker: Jie Wang
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Time: Thur, June 26th, 10:30 - 11:30

Venue: Room 110, SCMS

Abstract:

Optimization with polynomials is ubiquitous in both pure and applied mathematics. In this talk, I will give an overview on optimization problems with polynomials in diverse forms: commutative polynomial optimization, sum-of-rational-functions optimization, complex polynomial optimization, polynomial matrix optimization, noncommutative polynomial optimization. Particularly, I will show how to tackle those difficult problems with powerful mathematical tools from real algebraic geometry, measure theory, free algebraic geometry, and functional analysis.