



Optimization and Machine Learning Seminar

Nonnegativity, Sparsity and Polynomial Optimization

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Abstract

Certifying polynomial nonnegativity is a central problem in real algebraic geometry, and has a deep connection with polynomial optimization. In this talk, I will introduce two major tools for certifying polynomial nonnegativity: SOS decompositions and SONC decompositions. For SOS decompositions, I will show how to exploit various sparsity patterns hidden in the problem data to develop sparsity-adapted moment-SOS hierarchies. For SONC decompositions, I will discuss the related second order cone representations.

Date:	April 21, 2022 (Thursday)
Time:	4:00 - 5:00pm (Hong Kong Time)
Venue:	ZOOM: https://hku.zoom.us/j/
	Meeting ID: 997 3327 4432
	Password: 646089

All are welcome