

The Department of Applied Mathematics and Statistics

Presents

The 2020 Distinguished Alan J. Goldman Lecture Series

Featuring

Rekha Thomas

University of Washington, Seattle

Lifting for Simplicity: Concise Descriptions of Convex Sets

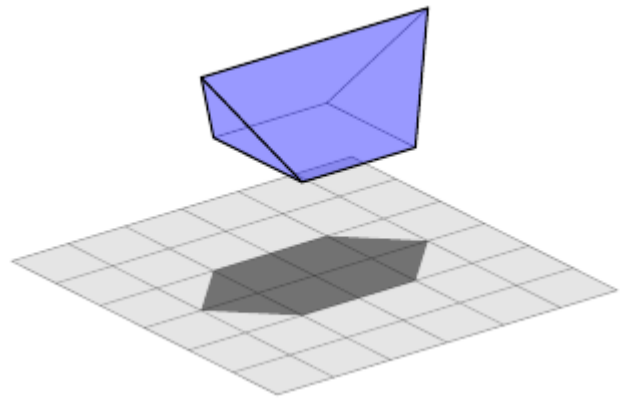
Thursday, November 19th, 2020

via Zoom: 1:30 -- 2:30pm

Here is the Zoom link and meeting info:

[https://wse.zoom.us/j/98200438645?  
pwd=d3M3WEljc0sxd3BRQldUU3dudzhdz09](https://wse.zoom.us/j/98200438645?pwd=d3M3WEljc0sxd3BRQldUU3dudzhdz09)

Meeting ID: 982 0043 8645 Passcode: **374212**



A common theme in many areas of mathematics is to find a simpler representation of an object indirectly by expressing it as the projection of an object in some higher-dimensional space. In 1991 Yannakakis proved a remarkable connection between a lifted representation of a polytope and the nonnegative rank of a matrix associated with the polytope. In recent years, this idea has been generalized to cone lifts of convex sets, with applications in, and tools coming from, many areas of mathematics and theoretical computer science.

This talk will survey the central ideas, results, and questions in this field.



**Bio:** Rekha Thomas is the Walker Family Endowed Professor of Mathematics at the University of Washington.

She received her Ph.D. in Operations Research from Cornell University in 1994 followed by postdoctoral work at Yale and Berlin. Her research interests are in Optimization and Applied Algebraic Geometry.