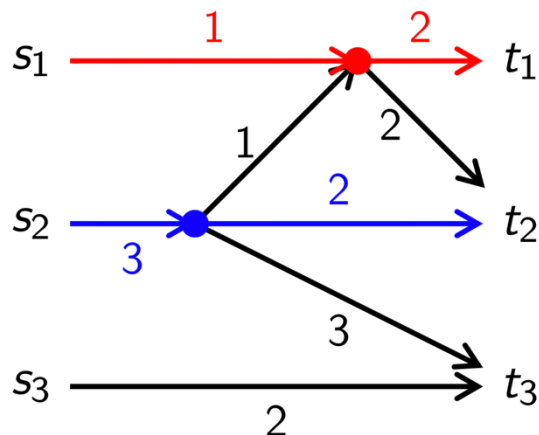


West Chester University
Fall 2022 Mathematics Colloquium

presents

SUNITA CHEPURI
Lafayette College



“Total Positivity and Networks”

Thursday, September 22, 2022 from 3:00 to 3:50PM
Anderson 211

(attend via Zoom: <https://wcupa.zoom.us/meeting/register/tJEIc-ipqzMrHNW2DvMepp-btkWPGIHGOGSE>)

Given a matrix, we can define a family of functions called minors that are polynomials in the matrix entries. If all minors of a matrix are nonnegative, a matrix is called totally nonnegative. We investigate the relationship between totally nonnegative matrices and planar directed networks, including results of Lindstrom and Brenti. We then discuss Alex Postnikov's generalizations of these results and my own work building on this theory.

Sunita Chepuri got her BA in math, with a minor in government, from Bowdoin College. She then attended the University of Minnesota for graduate school, where she was heavily involved with the combinatorics REU program and the Mathematics Project at Minnesota. After finishing her PhD, Sunita did a postdoc at the University of Michigan as a fellow with the Center for Inquiry-Based Learning. She has an active research program and has given presentations at conferences around the world. Sunita also enjoys eating ice cream, working out, and running a fantasy league for The Bachelor.

For further information e-mail mfisher@wcupa.edu