



The rising STAR of Texas

Discrete Mathematics Seminar

Time: Friday, April 30, 2021, 2:15-3:15 PM (Central Time)
Title: On 2-dimensional parking functions
Speaker: Lauren Snider, Department of Mathematics, Texas A&M University
Zoom Link: <https://txstate.zoom.us/j/99924628868?pwd=czdJWVpWOHZIZE0vbHBQL1pWell6QT09>
ID: 999 2462 8868
Passcode: **753321**

Abstract:

A 2-dimensional U-parking function is a pair of integer sequences whose order statistics are bounded by certain weights along lattice paths in the plane. U-parking functions are natural higher-dimensional generalizations of classical parking functions. Other interesting generalizations include (p,q) -parking functions (Cori and Poulalhon) and graphical parking functions (Postnikov and Shapiro). In this talk, we will show that (p,q) -parking functions are in fact U-parking functions for a particular node-set U , as well as explicitly describe the overlap between U-parking functions and graphical parking functions when U is affine. Along the way, we will consider a bivariate generating function associated with increasing (p,q) -parking functions which gives rise to a q -analog of the Narayana numbers. This is based on joint work with Catherine Yan.