Colloquium

February 19, 3:00 p.m. (8th Period)
(in the Atrium)

Speaker: Joshua Arroyo

Title: Finding Bumps in co-Bumpless Pipe Dreams

<u>Abstract</u>

Bumpless pipe dreams (BPDs) are combinatorial objects with an associated permutation which arose to study Schubert and Grothendieck polynomials. Recently, Weigandt introduced co-BPDs in order to expand Grothendieck polynomials in terms of Schubert polynomials and vice versa. The formula for expanding Grothendieck polynomials into Schuberts naturally leads to the question of which permutations have each co-BPD reduced. Our work characterizes permutations with all its co-BPDs being reduced as equivalent to avoiding a set of seven patterns. This is joint work with Adam Gregory.