Title: Permutation patterns, weak ascent sequences, and related combinatorial structures

Abstract:

In this talk I will present an overview of some recent developments in the area of enumerative combinatorics that concerns pattern-avoiding permutations. The area of permutation patterns is one that has grown steadily since the 1990s and has provided rich links to a wide variety of discrete structures. Topics to be discussed are (2+2)-free posets (also known as interval orders), ascent sequences, Fishburn permutations and matrices, and Stoimenow matchings. Through this we will present results from our recent paper `Weak ascent sequences and related combinatorial structures' (Eur. J. Comb. 2023).