Speaker: Vít Jelínek

Affiliation: Reykjavik University

Title: Pattern Avoidance in Partial Permutations

Abstract: One of the classical topics in combinatorics is the study of permutations that avoid a given fixed pattern. We have extended the concept of pattern avoidance in permutations to the so-called partial permutations. Informally, a partial permutation can be seen as a permutation in which some symbols have been erased and replaced by a 'wildcard' symbol that may represent any value.

We have shown that many previous results on pattern avoidance in permutations admit a non-trivial generalization to the setting of partial permutations. We have also discovered a close relationship between partial permutations and the so-called Baxter permutations. In the talk, I will give an overview of these results, and present some related conjectures.

This is joint work with Anders Claesson, Eva Jelínková and Sergey Kitaev.