

Colloquium

MIKLOS BONA University of Florida

SORTING PROBLEMS WITH UNEXPECTED CONNECTIONS TO ALGEBRAIC COMBINATORICS

Friday, Nov 8, 2024 3:00 p.m. in Massry BB-010 (tea & coffee at 2:45 p.m.)

ABSTRACT. We will survey some sorting algorithms whose original motivation came from evolutionary biology. Some questions related to these algorithms are very easy to understand, but very hard to solve. They can, unsurprisingly, be translated into the language of permutations. Much more surprisingly, permutations that are the products of maximal cycles play a major role in this area, and that makes sophisticated tools from algebraic combinatorics applicable.