

abstract

COMPUTER SCIENCE AND DISCRETE MATHEMATICS SEMINAR I

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

A ``tournament'' is a digraph obtained from a complete graph by directing its edges, and ``colouring'' a tournament means partitioning its vertex set into acyclic subsets (``acyclic'' means the subdigraph induced on the subset has no directed cycles). This concept is quite like that for graph-colouring, but different. For instance, there are some tournaments H such that every tournament not containing H as a subdigraph has bounded chromatic number. We call them ``heroes''; for example, all tournaments with at most four vertices are heroes.

It turns out to be a fun problem to figure out exactly which tournaments are heroes. We have recently managed to do this, in joint work with Berger, Choromanski, Chudnovsky, Fox, Loeb, Scott and Thomassé, and this talk is about the solution.