

Evolution of random representable matroids

Jane Gao

University of Waterloo

Abstract

Inspired by the classical random graph process introduced by Erdos and Renyi in 1960, we discuss two analogous processes for random representable matroids, one introduced by Kelly and Oxley in 1982 and the other one introduced by Cooper, Frieze and Pegden in 2019. In the talk we address the evolution of the rank, circuits, connectivity, and the critical number (corresponding to the logarithm of the chromatic number of graphs) of the first random matroid, and then we focus on the minors in both matroid models.