Graz University of Technology

Institut für Diskrete Mathematik

Combinatorics Seminar

Friday 2nd June 12:30

Online meeting (Webex)

Partitioning cubic graphs into isomorphic linear forests

Gal Kronenberg

(Oxford University)

The linear arboricity of a graph G, denoted by $\mathrm{la}(G)$, is the minimum number of edge-disjoint linear forests (i.e. collections of disjoint paths) in G whose union is all the edges of G. It is known that the linear arboricity of every cubic graph is 2. In 1987 Wormald conjectured that every cubic graph with even number of edges, can be partitioned such that the two parts are isomorphic linear forests.

This is known to hold for Jeager graphs and for some further classes of cubic graphs (see, Bermond-Fouquet-Habib-Peroche, Wormald, Jackson-Wormald, Fouquet-Thuillier-Vanherpe-Wojda). In this talk, we will present a proof of Wormald's conjecture for all large connected cubic graphs.

This is joint work with Shoham Letzter, Alexey Pokrovskiy, and Liana Yepremyan.

Meeting link:

https://tugraz.webex.com/tugraz/j.php?MTID=m3162bb7e6bef850e659f657a18095a1c

Meeting number: 2733 453 3442

Password: bSDVGJDp976

Joshua Erde, Mihyun Kang