Institut für Optimierung und Diskrete Mathematik

Vortrag im Seminar Diskrete Mathematik und Optimierung

Dienstag 3.2.2015, 14:15

Seminarraum C208, Steyrergasse 30, 2. Stock

The cost of distinguishing graphs

WILFRIED IMRICH

(Montanuniversität Leoben)

In a graph a set of vertices that is stabilized setwise by only the trivial automorphism is called a distinguishing class. Not every graph has such a set, but if it does, we call its minimum size the distinguishing cost. Many families of graphs have such sets, and for some families the distinguishing costs are surprisingly small.

The talk begins with a survey of results about about the distinguishing cost for finite and infinite graphs. Then it concentrates on infinite graphs with finite cost and new bounds on the distinguishing cost of graphs with linear growth, two ends and either infinite automorphism group, or finite group with infinite motion. There remain interesting, unresolved problems.

Mihyun Kang