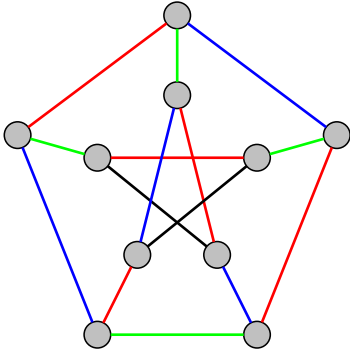




POLISH NATIONAL AGENCY
FOR ACADEMIC EXCHANGE



STER
PROGRAMME

name of the unit: MATHEMATICAL METHODS IN DATA SCIENCE Institute of Mathematics, Lodz University of Technology		symbol: I-73 http://www.im.p.lodz.pl
head of the unit: dr hab. Grzegorz Andrzejczak, prof. uczelni	potential promoters: dr hab. Szymon Głab, prof. uczelni dr hab. Przemysław Gordinowicz	contact person: Grzegorz Andrzejczak grzegorz.andrzejczak@p.lodz.pl
scope of activities: Graph theory: adjacency properties, graph colorings (incl. list colorings), graphical polynomial, graph searching games, topological graphs Fraïssé theory		graphic material 
present activities: <ol style="list-style-type: none">1. The polynomial method for list colorings of planar graphs2. Graph searching through relative distance queries3. Graphical, agent based models4. Fraïssé limits and inverse Fraïssé limits of finite structures		
Future activities: Continuation of the conducted research		
Publications/patents, awards, projects: <ol style="list-style-type: none">1. Przemysław Gordinowicz, Paweł Twardowski, <i>The polynomial method for list-colouring extendability of outerplanar graphs</i>, <i>Ars Mathematica Contemporanea</i>, 21 (2) (2021), art. P2.08.2. Szymon Głab, Przemysław Gordinowicz, Filip Strobin, <i>Dense free subgroups of automorphism groups of homogeneous partially ordered sets</i>, <i>Forum Mathematicum</i>, 31 (1) (2019), 215-240.3. Bartłomiej Bosek, Przemysław Gordinowicz, Jarosław Grytczuk, Nicolas Nisse, Joanna Sokół, Małgorzata Śleszyńska-Nowak, <i>Localization game on geometric and planar graphs</i>, <i>Discrete Applied Mathematics</i>, 251 (2018), 30-39.4. T. Gavenčiak, Przemysław Gordinowicz, V. Jelínek, P. Klavík, J. Kratochvíl, <i>Cops and Robbers on intersection graphs</i>, <i>European Journal of Combinatorics</i>, 72 (2018), 45-69.5. Przemysław Gordinowicz, <i>The 2-surviving rate of planar graphs with average degree lower than 9/2</i>, <i>Journal of Graph Theory</i>, 89 (2018), 341-349.6. Szymon Głab, Michał Pawlikowski, <i>An inverse Fraïssé limit for finite posets and duality for posets and lattices</i>, preprint: arxiv.org/abs/2201.10302		
Keywords: graphs, graph colorings, graph searching games, adjacency properties, Fraïssé limit		
List of internship proposal in this research team:		