

Mentor

Assoc. Prof. Istvan Kovacs; PhD

Research field

1.01.04 - Natural sciences and mathematics / Mathematics / Algebra

1.01.05 - Natural sciences and mathematics / Mathematics / Graph theory

Faculty member of UP and the research programme

UP Andrej Marušič Institute, research programme: P1-0285 Algebra, Discrete Mathematics, Probability and Game Theory

Other information about the mentor

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A brief description of the future young researcher training

The framework of the training programme:

The young researcher (YR) will join the research program P1-0285 Algebra, Discrete Mathematics, Probability and Game Theory and the research projects listed below, as well as to numerous bilateral projects implemented at UP IAM (<http://p1-0285.iam.upr.si/en/bilateral-projects>). YR will also be actively involved in new projects applications and organization of international conferences at UP IAM.

Within the research program and projects, various areas of mathematics are considered: YR's work will be performed within the theory permutation groups, combinatorics and graph theory. The research program P1-0285 has diversified research cooperation with similar research groups abroad (USA, Canada, Spain, China, South Korea, Australia, New Zealand, Israel, Austria, Slovakia, Italy and Hungary). YR will actively participate in this international scientific and research cooperation.

In the course of his training, YR will discuss current open problems in Algebraic Graph Theory with a special emphasis given to open problems related to the so-called CI-problem and the problem of the existence of odd automorphisms in symmetric objects. The research work of YR will be based on the use of algebraic approaches to deal with problems from graph theory and group theory.

List of research programmes and projects:

P1-0285	Algebra, discrete mathematics, probability and game theory	1.1.2004—31.12.2020
N1-0062	Oddness degree of transitive permutation groups	1.6.2017—31.5.2020
J1-7051	Independence in domination in structured graph classes	1.1.2016—31.12.2018

Preferable area of study for the young researcher

Mathematical Sciences, doctoral degree study programme Mathematical Sciences, UP FAMNIT

Other useful skills and competences for the position:

English language (advance - intermediate level)

Useful links

UP Andrej Marušič Institute (<http://www.iam.upr.si/en/>)

UP The Faculty of Mathematics, Natural Sciences and Information Technologies

(<https://www.famnit.upr.si/en>)

Algebra, discrete mathematics, probability and game theory (<http://p1-0285.iam.upr.si/sl/>)