Rhys J. Evans

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EDUCATION

PhD in algebraic graph theory   London, UK
Queen Mary University of London   2016–2020

- Thesis: 'On regular induced subgraphs of edge-regular graphs'
- Supervisor: Professor Leonard H. Soicher

MMath in Mathematics (first class honours)   Coventry, UK
University of Warwick   2012–2016

- Thesis: 'The Combinatorics of Minimum Weighted Perfect Matchings'

RESEARCH EXPERIENCE

Postdoctoral Researcher   Ljubljana, Slovenia
Institute of Mathematics, Physics and Mechanics   10/2023-

- Project: Computational Intensive Methods in Theoretical Computer Science, Discrete Mathematics, Combinatorial Optimization, Numerical Analysis, and Applied Algebra in Natural Sciences and Social Sciences

Postdoctoral Researcher   Novosibirsk, Russia
Sobolev Institute of Mathematics   09/2021-09/2022

- Part of the Applied Abstract Algebra research group, led by Professor Alexander Mednykh

PhD Researcher   London, UK
Queen Mary University of London   2016–2020

PUBLICATIONS

R. J. Evans, S. Goryainov, E. V. Konstantinova, and A. D. Mednykh, **A general construction of strictly Neumaier graphs and a related switching**, *Discrete Mathematics*, vol. 346, no. 7, p. 113 384, 2023. DOI: 10.1016/j.disc.2023.113384.

R. J. Evans, **Bounds on regular induced subgraphs of strongly regular graphs**, *Discrete Mathematics*, vol. 346, no. 1, p. 113 154, 2023. DOI: 10.1016/j.disc.2022.113154.

R. J. Evans, **AGT – Algebraic Graph Theory package for GAP, Version 0.2**, available at https://gap-packages.github.io/agt/, 2020.

R. J. Evans, S. Goryainov, and D. Panasenko, **The smallest strictly Neumaier graph and its generalisations**, *Electronic Journal of Combinatorics*, vol. 26, no. 2, P2.29, 2019. DOI: 10.37236/8189.

PREPRINTS

R. J. Evans, A. L. Gavrilyuk, S. Goryainov, and K. Vorobev, **Equitable 2-partitions of the Johnson graphs J(n, 3)**, preprint, 2022. arXiv: 2206.15341 [math.CO].

TEACHING EXPERIENCE

Teaching Assistant   London, UK
Queen Mary University of London   09/2017–08/2019

 – Led classes of 10-20 students, teaching topics introduced in weekly lectures

Demonstrator   London, UK
Queen Mary University of London   09/2017–08/2019

 – Assisted in classes of 10-20 students

Supervisor   Coventry, UK
University of Warwick   09/2017–08/2019

 – Led weekly meetings with small groups of students (1st year undergraduate)

PRESENTATIONS

Neumaier graphs

 – Seminar talk at the Discrete Mathematics Seminar, University of Ljubljana, Slovenia | 01/2024

Tightness of the weight-distribution bound in polar and affine polar graphs

 – Contributed talk at the 10th Slovenian Conference on Graph Theory, Kranjska Gora, Slovenia | 06/2023

 – Talk at the 8th Workshop on Algebraic Graph Theory and its Applications, Mathematical Center in Akademgorodok, Russia | 03/2023

Computer algebra systems

 – Postgraduate presentation at Novosibirsk State University, Russia | 04/2022

Why I study algebraic combinatorics

 – Undergraduate presentation at Novosibirsk State University, Russia | 12/2021

Further questions on Neumaier graphs

 – Contributed talk at the 5th Workshop on Algebraic Graph Theory and its Applications, Mathematical Center in Akademgorodok, Russia | 10/2021

Bounds for regular induced subgraphs of strongly regular graphs

 – Contributed talk at the 3rd Workshop on Algebraic Graph Theory and its Applications, Mathematical Center in Akademgorodok, Russia | 11/2020

 – Contributed talk at G2D2 Conference and Summer school, Three Gorges University, China | 08/2019

Neumaier graphs

 – Seminar talk at the Algebraic Combinatorics USTC-Anhui joint seminar, USTC, China | 09/2018

 – Contributed talk at G2R2 Conference and Summer school, Novosibirsk State University, Russia | 08/2018

Regular cliques in edge-regular graphs
- – Seminar talk at the Combinatorics Study Group, Queen Mary University of London, UK   05/2018

AWARDS AND FUNDING

Postgraduate Research Fund, Queen Mary University of London (£827)   2018
Doctoral Research Studentship, Queen Mary University of London (£16,000pa for 3.5 years) 2016–2020

ADDITIONAL EXPERIENCE

Software Development Intern   Birmingham, UK
Delcam   Summer 2015

- – Part of the team involved in development and sales of the artistic CADCAM solution ArtCAM

Data Analyst Intern   Herefordshire, UK
ZephIR Lidar   Summer 2014

- – Dealt with large data sets of wind and meteorological data

Yard Salesman   Gloucestershire, UK
Hale & Co. (Drybrook) builders merchants   Summer 2013

OTHER SKILLS AND QUALIFICATIONS

Teaching   01/2021–06/2021
120-hour premier TEFL course, including teaching methodology, self-observation and teaching large classes modules

Language   2016–present
Mandarin (HSK 4)

Programming   2016–present
Software development experience in GAP and C/C++, and basic knowledge of MATLAB, SageMath and Python