

## Curriculum Vitae

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### **Primož Potočnik,**

Institute of Mathematics, Physics and Mechanics,

Jadranska 19,

SI-1000 Ljubljana, Slovenia

E-mail: primoz.potocnik@fmf.uni-lj.si

**Citizenship:** Republic of Slovenia.

### **Education, Scientific Degrees and Academic Titles:**

- 2000, Ph. D., University of Ljubljana.  
(Thesis: Graph Symmetries and Group Actions;  
advisor: Prof. Dragan Marušič.)
- 1998, M. Sc. in Mathematics, University of Ljubljana.  
(Thesis: Some Classical Results on Permutation Groups;  
advisor: Prof. Dragan Marušič.)
- 1995, B. Sc. in Mathematics, University of Ljubljana.  
(Thesis: Vertex-transitive Graphs Which Are Not Cayley;  
advisor: Prof. Dragan Marušič.)

### **Work Experience:**

- October 2007 – present: Associate Professor,  
Department of Mathematics, Faculty of Mathematics and Physics, University  
of Ljubljana, Slovenia.
- October 2005 – September 2007: Lecturer,  
Department of Mathematics, Faculty of Mathematics and Physics, University  
of Ljubljana, Slovenia.
- September 2004 – September 2005: Postdoctoral Fellow,  
The University of Auckland – Department of Mathematic, Auckland, New  
Zealand.
- August 2003 – January 2004: Postdoctoral Fellow,  
University of Ottawa – Department of Mathematics and Statistics, Ottawa,  
Canada.
- September 2002 – present: Research Mathematician,  
Institute of Mathematics, Physics and Mechanics, University of Ljubljana,  
Slovenia.
- October 2001 – August 2002: Assistant Professor,  
Faculty of Education – Department of Mathematics and Computer Science,  
University of Ljubljana, Slovenia.
- December 1995 – September 2001: Sessional Lecturer,  
Department of Mathematics, Faculty of Mathematics and Physics, University  
of Ljubljana, Slovenia.

**Research Interests:**

Algebraic combinatorics, permutation groups, graph theory.

**Publications:****Published or Accepted for Publication in Refereed Journals**

1. P. Potočnik, *Group amalgams of index  $(4, 2)$  and tetravalent 2-arc-transitive graphs*, to appear in European J. Combin.
2. P. Potočnik and M. Šajna, *Brick assignments and homogeneous almost self-complementary graphs*, to appear in J. Combin. Theory, Ser. B.
3. M. Conder, P. Potočnik, J. Širáň, *Regular hypermaps over projective linear groups*, to appear in J. of Australian Math. Soc.
4. M. Knor, P. Potočnik, *A note on 2-subset-regular self-complementary 3-uniform hypergraphs*, to appear in Ars Combinatoria.
5. Š. Miklavič, P. Potočnik, S. Wilson, *Arc-transitive cycle decompositions of tetravalent graphs*, J. Combin. Theory, Ser. B **98** (2008), 11811192
6. P. Potočnik and M. Šajna, *The existence of regular self-complementary 3-uniform hypergraphs*, to appear in Discrete Mathematics.
7. P. Potočnik and M. Šajna, *Vertex-transitive self-complementary uniform hypergraphs* to appear in European J. Combin.
8. M. Giudici, C. H. Li, P. Potočnik, and C. Praeger, *Homogeneous factorisations of graph products*, Disc. Math. **308** (2008), 3652-3667.
9. A. Malnič, Š. Miklavič, D. Marušič, P. Potočnik, *Semisymmetric elementary abelian covers of the Möbius-Kantor graph*, Discrete Mathematics **307** (2007), 2156–2175.
10. P. Potočnik, M. Šajna, *Self-complementary two-graphs and almost self-complementary double covers*, European J. Combin. **28** (2007), 1561–1574.
11. Š. Miklavič, P. Potočnik, S. Wilson, *Overlap in consistent cycles*, J. Graph Theory **55** (2007), 55–71.
12. Š. Miklavič, P. Potočnik, and S. Wilson, *Consistent cycles in graphs and digraphs*, Graphs and Combinatorics **23** (2007), 205–216.
13. M. Giudici, C. H. Li, P. Potočnik, C. Praeger, *Homogeneous factorisations of complete multipartite graphs*, Discrete Mathematics **307** (2007), 415–431.
14. P. Potočnik, M. Šajna, G. Verret, *Mobility of vertex-transitive graphs*, Discrete Mathematics **307** (2007), 579–591.
15. P. Potočnik, S. Wilson, *Tetravalent edge-transitive graphs of girth at most 4*, Journal of Combinatorial Theory Ser. B., **97** (2007), 217–236.
16. Š. Miklavič, P. Potočnik, *Distance-regular Cayley Graphs on Dihedral Groups*, Journal of Combinatorial Theory Ser. B., **97** (2007), 14-33.
17. Š. Miklavič, P. Potočnik, *Distance-transitive Dihedrants*, Designs, and Cryptography **41** (2006), 185–193.

18. A. Malnič and P. Potočnik, *Invariant subspaces, duality, and covers of the Petersen graph*, European J. Combin. **27** (2006), 971–989.
19. M. C. E. Conder, A. Malnič, D. Marušič, P. Potočnik, *A census of cubic semisymmetric graphs on up to 768 vertices*, J. Alg. Combin. **23** (2006), 255–294.
20. P. Potočnik and M. Šajna, *On almost self-complementary graphs*, Disc. Math. **306** (2006), 107–123.
21. M. Giudici, C. H. Li, P. Potočnik, and C. Praeger, *Homogeneous factorisations of graphs and digraphs*, European J. Combin. **27** (2006), 11–37.
22. P. Potočnik, M. Škovič, R. Škrekovski, *Nowhere-zero 3-flows in Cayley graphs of abelian groups*, Discrete Mathematics **297** (2005), 119–127.
23. M. C. E. Conder, A. Malnič, D. Marušič, T. Pisanski, P. Potočnik, *The cubic edge- but not vertex-transitive graph on 112 vertices*, J. Graph Theory **50** (2005), 25–42.
24. P. Potočnik, *Edge-colourings of cubic graphs admitting a solvable vertex-transitive group of automorphisms*, Journal of Combinatorial Theory Ser. B, **91** (2004), 289–300.
25. A. Malnič, D. Marušič, P. Potočnik, *On cubic graphs admitting an edge-transitive solvable group*, Journal of Algebraic Combinatorics **20** (2004), 99–113.
26. A. Malnič, D. Marušič, P. Potočnik, *Elementary abelian covers of graphs*, Journal of Algebraic Combinatorics **20** (2004), 71–97.
27. A. Malnič, D. Marušič, P. Potočnik, C. Q. Wang, *An infinite family of cubic edge- but not vertex-transitive graphs*, Discrete Mathematics **280** (2004), 133–148.
28. Š. Miklavčič and P. Potočnik, *Distance-regular circulants*, European J. Combin. **24** (2003), 777–784.
29. D. Marušič, P. Potočnik, *Bridging semisymmetric and half-arc-transitive actions on graphs*, European J. Combin. **23** (2002), 719–732.
30. P. Potočnik, *On 2-arc-transitive Cayley graphs of abelian groups*, Discrete Mathematics **244** (2002), 417–421.
31. D. Marušič, P. Potočnik, *Classifying 2-arc-transitive graphs of order a product of two primes*, Discrete Mathematics **244** (2002), 331–338.
32. P. Potočnik, *B-groups of order a product of two primes*, Mathematica Slovaca **51** (2001), 63–67.
33. D. Marušič, P. Potočnik, *Semisymmetry of generalized Folkman graphs*, European J. Combin. **22** (2001), 333–349.
34. P. Potočnik, *Symmetry – in Graph Theory and in General* (Slovenian), Obzornik za matematiko in fiziko, **49**, (2002), 87–95.
35. P. Potočnik, *Counting - Basic and Less Basic* (Slovenian), Obzornik za matematiko in fiziko, **48**, (2001), 65–80.
36. P. Potočnik, *Electromagnetic potential of a charged moving particle* (Slovenian), Obzornik za matematiko in fiziko, **42**, (1995), 72–79.

**Submitted for Publication in Refereed Journals**

37. M. Conder, J. Širan, P. Potočnik, *Regular maps with almost Sylow-cyclic automorphism groups, and classification of regular maps with Euler characteristic  $-p^2$*

**Book chapters**

38. T. Pisanski, P. Potočnik, Chapter *Graphs on surfaces* in “Handbook of graph theory”, The CRC Press series on discrete mathematics and its applications (2004).

**Teaching Experience:**

- Courses taught as an Assistant Professor (2001–present):
  - 2005– : Several introductory courses to calculus, algebra and discrete mathematics (University of Ljubljana)
  - 2002/03: Mathematics (Polytechnic, Nova Gorica, Slovenia).
  - 2001/02: Analysis I and Discrete Structures (Faculty of Education, University of Ljubljana, Slovenia).
- Courses taught as a Sessional Lecturer (1995–2001): Calculus, Analysis I, Analysis II (for physicists), Linear Algebra, Discrete Mathematics.
- Courses taught as a Visiting Lecturer:
  - 2003: Mathematics for data communication (University of Auckland, New Zealand)
  - 2004: Discrete Structures (University of Auckland, New Zealand)

**Conference Presentations:**

- *Linking Ring Structures*, 6th Slovenian International Conference on Graph Theory, Bled, (June 2007).
- *4-valent Edge-Transitive Graphs*, Symmetries in Graphs, Maps, and Complexes - SIGMAC 06, Aveiro, Portugalska, (julij 2006).
- *Imprimitive Groups with Blocks of Size 2*, Geometry: Interactions with Algebra and Analysis, Auckland, New Zealand, (February 2005).
- *Edge-colourings of Cubic Vertex-transitive Graphs*, The 2004 NZIMA Conference in Combinatorics and its Applications, Taupo, New Zealand, (December 2004).
- *Edge-colourings of Cubic Vertex-transitive Graphs*, Summer 2002 Meeting of Canadian Mathematical Society, Quebec, Canada, (June 2002).
- *Semisymmetry and Half-arc-transitive Group Actions*, Algebraic and Topological Methods in Graph Theory, Auckland, New Zealand, (December 2000).
- *Alterexponent of a Digraph*, 17th Ljubljana-Leoben Seminar on Discrete Mathematics, Leoben, Austria, (April 2000).
- *On Semisymmetric Graphs*, 4th Slovenian Conference on Graph Theory, Bled, Slovenia, (June 1999).

- *On 2-arc-transitivity of Cayley Graphs of Abelian Groups*, 16th Ljubljana-Leoben Seminar on Graph Theory, Kranjska Gora, Slovenia, (October 1998).
- *On 2-arc-transitive Cayley Graphs of Abelian Groups* Symmetry in Graphs, Maps and Complexes, Flagstaff, Arizona, USA, (July 1998).

**Invited Lectures:**

- “Graphs and their symmetries” *Colloquium of the Department of Mathematics and Statistics, Northern Arizona University*, Flagstaff, 5th February 2008.
- “Graf, grupe in amalgami”, *Matematični kolokvij DMFA*, Ljubljana, 27th September 2005.
- “Symmetry in graphs”, *Combinatorics and Optimization Seminar*, University of Ottawa, Canada, 15 September 2003.
- “Regular Covers of Graphs and Their Symmetries”, *Algebra, Geometry and Combinatorics Seminar Series*, The University of Auckland, New Zealand, 10 March 2003.
- “Elementary Abelian Covers of Graphs”, *Groups and Combinatorics Seminar*, The University of Western Australia, Perth, Australia, 12 May 2003.
- “Flows and colourings of vertex-transitive graphs”, *Bratislavsky Seminar z Teorie Grafov*, Comenius University, Bratislava, Slovakia, September 2001;

**Member of programme or organising committee at international conference:**

- Member of programme committee, *Workshop on Graph Asymmetries*, Massey University, Palmerston North, New Zealand, 23. – 25. February 2005.

**Longer visits of universities and research institutions:**

- *Northern Arizona University*, Flagstaff, Arizona, USA, 18 February 2004 – 9 July 2004;
- *Univeristy of Ottawa*, Ottawa, Canada, 1 August 2003 – 31 January 2004;
- *University of Western Australia*, Perth, Australia, 15 April – 5 June, 2003;
- *University of Auckland*, Auckland, New Zealand, 10 February – 15 April, 2003.

**Awards, honors and grants:**

- *Fulbright Scholarship*, 5 months, academic year 2003/04.
- *Bilateral Project SLO-USA: “Edge-transitive graphs of small valencies”*, 2003–2005, sponsored by the Slovenian Government.