
CONTACT INFORMATION	<p>School of Mathematics University of Manchester Oxford Road Manchester M13 9PL, UK</p>	<p><i>Mobile:</i> +44 (0)790 645 0298 <i>Office:</i> +44 (0)161 275 5842 goran.malic@manchester.ac.uk, goranm00@gmail.com goranmalic.com</p>
RESEARCH INTERESTS	<p>Geometric Galois Actions: Dessins d'enfants, i.e. bipartite graphs cellularly embedded onto Riemann Surfaces. Inverse Galois Theory and Grothendieck-Teichmüller Theory. Combinatorics: Embeddings of graphs on surfaces, combinatorial maps, circle packings. Coxeter matroid theory, Lagrangian Matroids (also known as delta-matroids). Tropical geometry.</p>	
EMPLOYMENT	<p>University of Manchester, School of Mathematics, Manchester, United Kingdom Visiting lecturer (MATH19872), February - September 2016</p>	
EDUCATION	<p>University of Manchester, School of Mathematics, Manchester, United Kingdom Ph.D., Pure Mathematics, November 2015</p> <ul style="list-style-type: none"> • Thesis Topic: <i>Grothendieck's dessins d'enfants and the combinatorics of Coxeter Groups</i> • Supervisor: Professor Alexandre Borovik • Area of Study: Galois Theory, Riemann Surfaces, Grothendieck-Teichmüller Theory, Coxeter Groups, (Coxeter) Matroid Theory <p>University of Zagreb, Department of Mathematics, Zagreb, Croatia Joint MSc. and BSc., Pure Mathematics, November 2011</p> <ul style="list-style-type: none"> • Thesis Topic: <i>Intrinsic description of shape for topological spaces</i> • Supervisor: Professor Zvonko Čerin • Area of Study: Topology, Shape Theory 	
NATIONALITY	Croatian (EU) national.	
PUBLICATIONS	<p>[1] Malić, G. Representations of Lagrangian matroids associated to partial duals of maps on surfaces. arXiv:1507.01957v2 [math.CO]</p> <p>[2] Malić, G. Dessins, their delta-matroids, and partial duals. arXiv:1506.02441v1 [math.CO] Accepted for publication in the SIGMAP14 Conference Proceedings (Springer).</p>	
ACADEMIC SERVICE	<p>Seminar Service</p> <ul style="list-style-type: none"> • Organizer of the 2014/15 (informal) Discrete Mathematics Seminar at the University of Manchester. <p>Conference Service</p> <ul style="list-style-type: none"> • Co-organizer (with A. Biggs, A. Longdon and Y. Boote) of the 88th Transpennine Topology Triangle (TTT88), Manchester, UK, May 17, 2013. <p>MSc Writing Clinic 2015</p> <ul style="list-style-type: none"> • Writing Coach for students on a mathematics MSc course at the University of Manchester. 	
OUTREACH	<p>Extended Qualifications Project (EPQ) developer in 2013 and 2014</p> <ul style="list-style-type: none"> • Project titles: "Infinity and beyond", and "Roots of Polynomials". • Project presented to several groups of A-Level students on Modelling day in Manchester, 2013 and 2014. • Details available at goranmalic.com 	

University Of Manchester, Manchester, United Kingdom

Lead Demonstrator/Teaching Assistant

- Lead Demonstrator for the following courses: MATH19861: Mathematics for Foundation Studies (ON1), MATH19661: Mathematics (1M1), MATH19681: Mathematics (1E1), MATH19542: Mathematics (OC2/1C2), MATH10222: Calculus And Applications (Single Honours), MATH10232: Calculus And Applications (Joint Honours)
- Teaching Assistant for the following courses: MATH32071: Introduction to Number Theory, MATH20902: Discrete Mathematics, MATH20101: Real and Complex Analysis, MATH20122: Metric Spaces, MATH10242: Sequences and Series, MATH20201: Algebraic Structures 1

March 2009 to February 2010

University Of Zagreb, Department of Mathematics, Zagreb, Croatia

- Student Demonstrator for Mathematical Analysis 1 and 2.

CONFERENCE
TALKS

- [3] *Are there (non-trivial) matroidal Galois invariants of dessins?* 5th Workshop SIGMAP - Symmetries In Graphs, Maps And Polytopes, ELIM Conference Centre, West Malvern, UK, July 7-11, 2014.
- [4] *Ramified coverings of the Riemann sphere and Galois Theory: an introduction to the theory of dessins d'enfants.* Young Topologists Meeting 2014, Copenhagen, Denmark, June 30 - July 4, 2014.
- [5] *Maps on Surfaces and Matroids.* 2014 SIAM Conference on Discrete Mathematics (DM14), Minneapolis, Minnesota, USA, June 16-19, 2014.
- [6] *Strings, Maps and Moduli.* The University of Manchester Mathematics Research Students' Conference (MRSC 2013), Manchester, UK, September 24, 2013.

OTHER SELECTED
TALKS

- [7] *Tropical curves from maps on surfaces.* The University of Manchester Tropical Mathematics Reading Group, Manchester, UK, March 11, 2015.
- [8] *The 20th Anniversary of the Proof of Fermat's Last Theorem.* The University of Manchester Galois Group (undergraduate group), Manchester, UK, November 12, 2014.
- [9] *Partial duals of maps on surfaces and their monodromy and automorphism groups.* Groups and their Applications "Triangle", Birkbeck, University of London, London, UK, November 5, 2014.
- [10] *Introduction to the theory of Grothendieck's dessins.* University of Zagreb, Department of Mathematics Topology Seminar, Zagreb, Croatia, September 15, 2014.
- [11] *Towards the Grothendieck-Teichmüller Group.* The University of Manchester Topology Seminar, Manchester, UK, February 10, 2014.
- [12] *Matroids.* University of Zagreb, Department of Mathematics Geometry Seminar, Zagreb, Croatia, January 13, 2014.
- [13] *Cell decompositions of decorated Moduli Spaces.* The University of Manchester Informal Discrete Mathematics Seminar, Manchester, UK, December 4, 2013.
- [14] *Intrinsic Description of Shape for Compact Metric Spaces.* University of Zagreb, Department of Mathematics Topology Seminar, Zagreb, Croatia, February 6, 2012.

SELECTED
CONFERENCES AND
SUMMER SCHOOLS

- Galois Theory and Number Theory Summer School, 18-24 July 2015, Konstanz, Germany.
- Grothendieck memorial conference, 4-5 June 2015, London, UK.
- 5th Workshop SIGMAP - Symmetries In Graph, Maps And Polytopes, 7-11 July 2014, West Malvern, UK.
- SIAM Discrete Mathematics 2014, 16-19 June 2014, Minneapolis, Minnesota, USA.
- Combinatorial Geometry : matroids, oriented matroids and applications 2013, 2-6 April 2013, CIRM Luminy, France.

AWARDS

Society for Industrial and Applied Mathematics (SIAM)

- SIAM Student Travel Award 2014.

The Staples Trust, Frankopan Fund

- Scholarship from the Frankopan Fund 2012-2015 for post-graduate study in the UK.

University of Zagreb

- Chancellor's Prize, 2007

SOFTWARE
PROFICIENCY

Mathematica

- experienced user, 10 years of experience. Familiar with dynamic visualisations and package development.

Matlab

- Basic user, less than a year of experience.

C/C++

- Basic user, several years of experience (university courses etc.).

L^AT_EX

- Experienced user, familiar with most advanced packages, including memoir, TikZ and PGF.

REFERENCES
AVAILABLE TO
CONTACT

Prof. Dr. Alexandre V. Borovik

- Professor, School of Mathematics, The University of Manchester
- * borovik@manchester.ac.uk; phone: +44 (0)161 306 3645
- ◇ School of Mathematics, University of Manchester, Oxford Road, Manchester M13 9PL
- ★ *Prof. Borovik was my postgraduate supervisor*

Dr. Mark Kambites

- Reader, School of Mathematics, The University of Manchester
- * mark.kambites@manchester.ac.uk
- ◇ School of Mathematics, University of Manchester, Oxford Road, Manchester M13 9PL

Dr. Ben Fairbairn

- Lecturer, Department of Economics, Mathematics and Statistics, Birkbeck, University of London
- * b.fairbairn@bbk.ac.uk; phone: +447445283768
- ◇ Birkbeck, University of London, Department of Economics, Mathematics and Statistics, Malet Street, Bloomsbury, London WC1E 7HX

Prof. Dr. Nigel Ray

- Professor, School of Mathematics, The University of Manchester
- * nigel.ray@manchester.ac.uk; phone: +44 (0)161 275 5848
- ◇ School of Mathematics, University of Manchester, Oxford Road, Manchester M13 9PL
- ★ *Teaching reference*