

Curriculum Vitae

Jelena Grbić

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Date of birth: 1st November 1974

Languages spoken: Serbian, English, Russian

Appointments

2012– present	Reader in Pure Mathematics, University of Southampton, UK.
2009–2012	Senior Lecturer in Pure Mathematics, University of Manchester, UK.
2008	Maternity leave
2007–2009	Lecturer in Pure Mathematics, University of Manchester, UK.
2005–2006	Visiting Lecturer, National University of Singapore, Singapore (invited by Prof Jie Wu).
2004–2006	Lecturer in Pure Mathematics, University of Aberdeen, UK.
March–Dec. 2004	Postdoctoral research position, University of Aberdeen, UK.

Education

2001–2004	Ph.D. in Algebraic Topology, University of Aberdeen, UK.
1997–2000	M.Sc. in Topology, University of Belgrade, Serbia/ State University of Moscow, Russia.
1993–1997	B.Sc. in Mathematics, University of Belgrade, Serbia.

Membership of professional organisations:

London Mathematical Society
Mathematical Society of Serbia

Research Grants

Major (by importance and value) research grants:

2013-2018	<i>ERC Starting grant</i> “Homotopy theory and Toric Topology”, €1,500,000: submitted October 2012.
2012–2015	<i>Leverhulme Trust research grant</i> “Homotopy theory of toric spaces”, £219,633: I am PI; a research assistant and a PhD student appointed for 3 years.
2008	<i>EPSRC Workshop grant</i> “Toric Topology Workshop”, £17,506: Submitted together with Prof Ray, grant supported international workshop in Manchester, July 2008. EPSRC Individual Grant Review overall assessment: outstanding .
2008–2010	<i>EPSRC First Grant</i> “Homotopy decompositions and the homotopy exponent problem”, £250,000: I was PI; a research assistant appointed for 2 years. EPSRC Individual Grant Review overall assessment: outstanding .
2007–2009	<i>Royal Society International Joint Project</i> “Toric Topology and its Applications”, £12,000: I was a co-I; proposal submitted with Prof Buchstaber (Moscow) and Prof Ray (Manchester).
2007, 2009, 2010	<i>WUS Austria Brain Gain Programme</i> , £5,900: for teaching graduate courses and research in ex-Yugoslavia.
2005–2007	<i>Nuffield Foundation Award for Newly Appointed Lecturers</i> “Toric Topology”, £5,000: I was PI.
2005–2006	<i>EPSRC Overseas Travel Grant</i> (to the National University of Singapore) “The atomic retract containing the bottom cell of $\Omega\Sigma$: its homology and homotopy exponent”, £10,000: I was PI. EPSRC Individual Grant Review overall assessment: outstanding .

Awards and Distinctions

- 2010 Best visiting lecturer of WUS Austria Brain Gain Programme.
 2001–2004 Overseas Research Student Award, University of Aberdeen.
 2001–2004 Milner Ph.D. Scholarship, University of Aberdeen.
 2000 Norwegian award for 10 best students in Serbia.
 1997 M. P. Alas award for the best B. Sc. in Mathematics student, University of Belgrade.
 1993–1997 Ministry of Art and Science Distinction Scholarship, University of Belgrade.

Research Supervisions

- PhD students:* S. Miller (2007-2011) and D. Robinson (2008-2012) *Postdocs:* H. Zhao (2008-2010)
 A. Longdon (ongoing) P. Beben starting in January 2013
 new PhD student starting in January 2013

Professional Service (selected)

- Referee for leading Academic Journals: Geometry and Topology, Algebraic and Geometric Topology, Advances in Mathematics, Forum Mathematicum, Proceedings of the AMS, Mathematical Proceedings Cambridge Philosophical Society.
 Referee and reviewer for Cambridge University Press, and in Mathematics/Statistics at Chapman & Hall/CRC for research, undergraduate textbook and popular publications
 Reviewer for Mathematical Reviews and Zentralblatt Math.

Major conferences and seminars organised:

- ▷ *International Conference on Homotopy Theory and its Applications*, Chern Institute of Mathematics, Beijing, 24th-29th May 2009. Organisers: Fred Cohen, Jie Wu and myself.
 ▷ *New Horizons in Toric Topology*, Manchester, 7th-12th July 2008 with the granted status of Satellite to the 5th European Congress of Mathematics. Organised by Nigel Ray and myself.
 ▷ *Workshop in Toric Topology*, Manchester, 1st-5th July 2008. Organised by Nigel Ray and myself.
 ▷ *Topology seminar organiser*, Aberdeen: 2004-2006; Manchester: 2007-September 2012.
 ▷ *International Conference in Algebraic Topology*, Isle of Skye, June 2001 and 2005; one of five organisers.

Invited plenary speaker at international conferences (selected)

- Jul 2013 “Algebraic Topology and Geometric Topology”, Chern Institute of Mathematics, Tianjin, China.
 Jun 2013 “Algebraic Topology and Abelian Functions”, conference in honour of Victor Buchstaber, Moscow, Russia.
 Jan 2012 4th Sheffield Homotopy Miniconference: “Homotopy and Geometry of Loop Spaces”, Sheffield.
 Sep 2011 International Conference “Toric Topology and Automorphic Functions”, Khabarovsk, Russia.
 Aug 2011 Colloque du GDR 2875 “Topologie Algébrique et Applications”, Nantes, France.
 Nov 2010 Topological methods in toric and symplectic geometry, and combinatorics, BIRS, Banff, Canada.
 Dec 2008 Algebraic Topology, Braids and Mapping Class Groups, Institute for Math Sci, Singapore.
 Jun 2007 Braids, Institute for Mathematical Sciences, Singapore: an international programme and conference which brought researchers from several mathematical disciplines to address the complex nature of braids and possible applications.
 May 2006 Algebraic Topology, Osaka, Japan.
 Jun 2006 Toric Topology, Osaka, Japan: the first international conference on Toric Topology with an aim to underline the emerging significance of the subject.
 Jul 2005 Annual Conference on Algebraic Topology, Matsumoto, Japan.
 Jul 2005 International conference: Groups, Homotopy and Configuration Spaces –conference in honour of Fred Cohen, Tokyo, Japan: the most prestigious conference in the field that year.

Invited speaker at international conferences (selected)

- May 2012 International topology conference: “Alexandroff Readings”, Moscow, Russia.
 Apr 2011 British Mathematical Colloquium, Leicester.

Sep 2009 24th British Topology Meeting, Leicester.
Jun 2009 25th Nordic and 1st British-Nordic congress of Mathematicians, Oslo, Norway.
Dec 2003 42nd Transpennine Topology Triangle, Leicester.
Sep 2003 18th British Topology Meeting, Manchester.
Jun 2003 International conference: Kolmogorov and Contemporary Mathematics, Moscow, Russia.

Publication Track Record

My research progress has been rapid. I have written or collaborated on 22 papers (published, accepted, or submitted) in 8 years (including a maternity leave). The quality has not been diminished by the quantity; all the research papers have appeared in leading international journals. Please see the List of Publications.

Teaching

I have 10 years of teaching experience at both undergraduate and graduate level. My lecturer rating is one of the best in the school and have been awarded several “best teacher” prizes.

Non-Research Leadership

These are administrative commitments at the University of Manchester; administrative commitments at the University of Southampton are yet to be allocated.

- ▷ *Academic advisor* for 30 undergraduate students in 2011/12.
- ▷ A member of the *Undergraduate Admission Team* at the School of Mathematics.
- ▷ Organiser of the weekly *Topology seminar* (since 2007).

List of Publications

The 5 most significant publications are highlighted in bold.

A. Refereed Publications

- [19] J. Grbić and V. Buchstaber, *Hopf algebras and homology of loop suspension spaces*, to appear in J. Eur. Math. Soc.
- [18] J. Grbić and S. Theriault, *The homotopy type of the polyhedral products for shifted complexes*, to appear in Adv. Math.
- [17] J. Grbić, S. Theriault and J. Wu, *Suspension splittings and James-Hopf invariants*, to appear in Proc. Roy. Soc. Edinburgh Sect. A.
- [16] J. Grbić and S. Terzić, *The integral homology ring of the based loop space on some generalised symmetric spaces*, to appear in Mosc. Math. J.
- [15] J. Grbić, J. Harper, M. Mimura, S. Theriault and J. Wu, *Rank $p - 1 \bmod p$ H -spaces*, to appear in Israel J. of Math.
- [14] J. Grbić, S. Theriault and J. Wu, *Decompositions of looped co- H -spaces*, to appear in PAMS.
- [13] J. Grbić and H. Zhao, *Homotopy exponents of some homogeneous spaces*, Q. J. Math. 62 (2011), 953–976.
- [12] J. Grbić and S. Theriault, *Self-maps of low rank Lie groups at odd primes*, Canad. J. Math. 62 (2010), 284–304.
- [11] J. Grbić and S. Terzić, *The integral Pontryagin homology of the based loop space on a flag manifold*, Osaka J. Math. 47 (2010), 439–460.
- [10] J. Grbić and S. Theriault, *A universal property for $\mathrm{Sp}(2)$ at the prime 3*, Homology, Homotopy Appl. 11 (2009), 1–15.
- [9] J. Grbić, *Homotopy theory and the complement of a coordinate subspace arrangement*, Contemp. Math. 460 (2008), 111–130.
- [8] J. Grbić, P. Selick and J. Wu, *The decomposition of the loop space of the mod 2 Moore space*, Algebr. Geom. Topol. 8 (2008), 945–951.
- [7] **J. Grbić and S. Theriault, *The homotopy type of the complement of coordinate subspace arrangements*, Topology 46 (2007), 357–396.**
- [6] J. Grbić and J. Wu, *Applications of combinatorial groups to the Hopf invariants and the exponent problem*, Algebr. Geom. Topol. 6 (2006), 2229–2255.
- [5] J. Grbić and J. Wu, *Natural transformations of tensor algebras and representations of combinatorial groups*, Algebr. Geom. Topol. 6 (2006), 2189–2228.
- [4] J. Grbić, *The cohomology of exotic 2-local finite groups*, Manuscripta Math. 120 (2006), 307–318.
- [3] J. Grbić, *Universal spaces of two-cell complexes and their homotopy exponents*, Q. J. Math. 57 (2006), 355–366.
- [2] J. Grbić, *Universal homotopy associative, homotopy commutative H -spaces and the EHP spectral sequences*, Proc. Camb. Phil. Soc. 140 (2006), no.3, 377–400.
- [1] J. Grbić and S. Theriault, *The homotopy type of the complement of the codimension-two coordinate subspace arrangement*, (Russian) Uspekhi Mat. Nauk 59 (2004), 203–204.

B. Submitted Publications

- [20] J. Grbić and S. Theriault, *Higher Whitehead products in Toric Topology*, submitted to J. Topol.
- [21] **J. Grbić and J. Wu, *Homotopy Rigidity of $\Omega\Sigma$ functor*, submitted to Geom. Topol.**
- [22] J. Grbić, S. Theriault, and H. Zhao, *A filtration of the double suspension E^2* , submitted to Homology, Homotopy Appl.