Personal information

Current position

Name Martin Palmer-Anghel

(Note: for publications I use just the first half of my last name, i.e. Palmer) Researcher, Institute of Mathematics of the Romanian Academy, Bucharest

Nationalities British and German
Date of birth 9 February 1987

Address Institutul de Matematică Simion Stoilow al Academiei Române

21 Calea Griviței, 010702 București, România

Email address martin.palmer.314@gmail.com

Website url mdp.ac

Qualifications and employment history

2019–present	Researcher at the Institute of Mathematics of the Romanian Academy, Bucharest
2016-2019	Postdoctoral researcher at Universität Bonn
2015-2016	Postdoctoral researcher at Université Paris 13
2013-2015	Postdoctoral researcher at the University of Münster (WWU Münster)
2009-2013	University of Oxford: DPhil — supervised by Prof. Ulrike Tillmann
	Thesis title: Configuration spaces and homological stability
	Submitted: December 2012; defended: February 2013
2005-2009	University of Oxford: MMath (1st class + Gibbs Prize)

Publications

[1] Homological stability for oriented configuration spaces

Transactions of the American Mathematical Society 365 (2013), 3675–3711 (37 pp.)

[2] *On homological stability for configuration spaces on closed background manifolds* (with F. Cantero) Documenta Mathematica 20 (2015), 753–805 (53 pp.)

[3] A twisted homology fibration criterion and the twisted group-completion theorem (with J. Miller) Quarterly Journal of Mathematics 66.1 (2015), 265–284 (20 pp.)

[4] Scanning for oriented configuration spaces (with J. Miller)

Homology, Homotopy and Applications 17.1 (2015), 35–66 (32 pp.)

[5] Twisted homological stability for configuration spaces

Homology, Homotopy and Applications 20.2 (2018), 145–178 (34 pp.)

[6] *Triple-crossing number and moves on triple-crossing link diagrams* (with C. Adams and J. Hoste) To appear in Journal of Knot Theory and Its Ramifications (arXiv:1706.09333, 22 pp.)

[7] Homological stability for subgroups of surface braid groups (with T. Tran)

To appear in Homology, Homotopy and Applications (arXiv:1410.0923, 10 pp.)

Note: the first arXiv version of this paper was authored solely by T. Tran; I became co-author at a later stage.

Preprints

[8] A comparison of twisted coefficient systems

arXiv:1712.06310, submitted (30 pp.)

[9] Homological stability for moduli spaces of disconnected submanifolds, I

arXiv:1805.03917, submitted (45 pp.)

[10] Homological stability for moduli spaces of disconnected submanifolds, II – Symmetric diffeomorphism groups and parametrised connected sum

arXiv:1807.07558 (28 pp.)

[11] A unified functorial construction of homological representations of families of groups (with A. Soulié) arXiv:1910.13423 (83 pp.)

Awards and fellowships

- 2016 Fellowship (Chargé de recherches) from Fonds de la Recherche Scientifique FNRS (declined)
- 2009 Gibbs Prize from the University of Oxford for the highest grade in Part C (4th year) exams
- 2008 Gibbs Prize from the University of Oxford for the highest grade in Part B (3rd year) exams

Selected talks at conferences (by topic)

- On moduli spaces of disconnected submanifolds (including symmetric diffeomorphism groups and diffeomorphism groups of manifolds with singularities):
 - · July 2019: PCMI research program: Quantum field theory and manifold invariants, Park City, Utah
 - · July 2019: Workshop: Loops in Leeds: Motion groups and related topics, Leeds
 - · June 2019: Ninth Congress of Romanian Mathematicians, Galați
 - · Sept. 2018: Workshop: Cohomological study of mapping class groups and related topics, Strasbourg
 - · July 2018: Satellite meeting of the ICM: Braid groups, configuration spaces and homotopy theory, Salvador, Bahia, Brazil
 - · June 2018: Conference on Manifolds, groups and homotopy, Skye
 - · July 2016: Young topologists' meeting, Copenhagen
 - · June 2016: Conference on Topology of manifolds, Lisbon
 - · July 2013: Young topologists' meeting, Lausanne
 - · March 2013: Topology workshop of the British Mathematical Colloquium, Sheffield
- On configuration spaces on closed manifolds:
 - · October 2015: Annual meeting of the GDR 2875, Topologie algébrique et applications, Toulouse
 - · March 2015: Workshop on *Homotopy theory*, Oberwolfach (short talk)
- On homological stability for oriented configuration spaces:
 - · July 2012: Young topologists' meeting, Copenhagen
 - · September 2011: Workshop on *Homotopy theory*, Oberwolfach (short talk)

Selected talks at seminars (by topic)

- On moduli spaces of disconnected submanifolds:
 - · July 2018: Arbeitsgemeinschaft-Seminar, Regensburg
 - · March 2018: Topology seminar, IMAR, Bucharest
 - · December 2015: Séminaire de Topologie, Institut de Mathématiques de Jussieu-Paris Rive Gauche
 - · February 2013: Topology seminar, Aberdeen
- On twisted homological stability for configuration spaces:
 - · November 2017: Séminaire Algèbre et topologie, IRMA, Strasbourg
 - · May 2017: Oberseminar Topologie, Bonn
 - · March 2017: Topology seminar, Barcelona
 - · May 2013: Oberseminar Topologie, Münster
- On configuration spaces on closed manifolds:
 - · April 2016: Topology seminar, Aberdeen
 - · October 2015: Séminaire de topologie, Lille
 - · June 2015: Séminaire de topologie algébrique, Louvain-la-Neuve
 - · April 2015: Topology seminar, Oxford
 - · March 2015: Séminaire de l'équipe topologie algébrique, Paris 13
 - · March 2015: Séminaire de topologie, géométrie et algèbre, Nantes
- \bullet On twisted group-completion and scanning for oriented configuration spaces:
 - · March 2019: Topology seminar, IMAR, Bucharest
 - · January 2015: Leray seminar, Münster
- On homological stability for oriented configuration spaces:
 - · February 2013: Topology seminar, Manchester
 - · January 2012: Topology seminar, Copenhagen
 - · December 2011: Algebra and topology seminar, Swansea

Teaching

- At Bonn (2016–2019):
 - · Lecturer for a master's-level course on Algebraic Topology I (link)
 - · Lecturer for a master's-level course on *Exotic spheres* (link)
 - · Running a bachelor's- and master's-level seminar on Braid groups and configuration spaces (link)
 - · Running a bachelor's- and master's-level seminar on *Morse theory* (link)
 - · Jointly running an undergraduate seminar on Riemann surfaces with Prof. Carl-Friedrich Bödigheimer
 - · Assistent for the course Einführung in die Algebra by Prof. Catharina Stroppel
 - · Assistent and Übungsgruppenleiter for the course *Topologie 1* by Prof. Carl-Friedrich Bödigheimer
- At Münster (2013–2015):
 - · Übungsgruppenleiter for the course *Topologie 3* by Prof. Michael Weiss.
 - · Substitute lecturer for a course on Selected topics in topology by Prof. Michael Joachim.
 - · Übungsgruppenleiter for a course on *Knot theory* by Prof. Michael Weiss.
- At Oxford (2009–2012):
 - · Teaching assistant for 3rd/4th year courses *Lie groups* (by Prof. Ulrike Tillman), *Topology and groups* (by Prof. Marc Lackenby) and *Algebraic topology* (by Prof. Ulrike Tillmann).
 - · Class tutor, including running all revision classes before exams, for the Algebraic topology course.
 - · Tutor for several 1st and 2nd year algebra courses at St John's College and at Merton College.
 - · Assistant interviewer in 2011 for undergraduate admissions at Merton College.
- Other teaching:
 - · 5-lecture mini-course *Introduction to exotic spheres* (based on my lecture course at Bonn; see above) at the Institute of Mathematics of the Romanian Academy, in August/September 2017

Undergraduate and graduate supervision

Philipp Wegner (B; 06/2019) Loop braid groups

Christopher Fillmore (M; 12/2018) Homological stability of mapping class groups

David Göckede (B; 01/2018) The Alexander and HOMFLY polynomials via Markov functions

Genta Latifi (M; 12/2017) Vertical configuration spaces and homological stability

Lara Glessen (B; 06/2017) Linearity of the braid groups

(All students at the University of Bonn M = master's-level B = bachelor's-level)

(Date = date of submission of the thesis)

Organisation of scientific meetings

- I was a co-organiser of the Münster functor calculus workshop, which took place in June 2015.
- I was a "demonstrator" for the Clay Mathematics Institute research school on *Algebraic topology of manifolds* at Oxford in September 2017
- I was the teaching assistant for a lecture course at the 2019 PCMI Graduate Summer School

Memberships of scientific societies and other professional activities

- Member of the London Mathematical Society (LMS).
- Reviewer for Zentralblatt (link to list of reviews: zbmath.org/?q=rv:00015044).
- Referee for Q. J. Math., Trans. AMS, Proc. AMS, Math Z., Homology Homotopy Appl. and Comm. Algebra.

Languages

- English (native)
- German (level: ~C1)
- French (level: ~B2)
- Romanian (level: ~B1)

Selected conferences attended

- 09-10.19 Oxford: Clay Conference and Workshop on Patterns in Cohomology of Moduli Spaces
 - 09.19 Bonn: Workshop on Automorphisms of Manifolds
 - 07.19 Utah (PCMI): Research program on Quantum field theory and manifold invariants
 - 07.19 Leeds: Workshop on Motion groups and related topics ("Loops in Leeds")
- 06-07.19 University of Galati: Ninth Congress of Romanian Mathematicians
 - 06.19 Paris Diderot: Colloquium in honour of Christian Blanchet, Low dimensional topology
 - 06.19 University of Bucharest: Workshop for Young Researchers in Mathematics
 - 05.19 Bonn, MPIM: Conference on Higher homotopy algebras in topology
 - 03.19 Budapest, Rényi Institute: Workshop on Chekanov-Eliashberg algebra and knot invariants
 - 12.18 Cambridge: Manifolds (part of the programme mentioned below at the Isaac Newton Institute)
- 09-10.18 Cambridge: Participant of the programme Homotopy harnessing higher structures at the INI
 - 09.18 Strasbourg: Conference on Cohomological study of mapping class groups and related topics
 - 07.18 Salvador, Brazil: ICM satellite: Braid groups, configuration spaces and homotopy theory
 - 06.18 An t-Eilean Sgitheanach (Isle of Skye): Conference on Manifolds, groups and homotopy
 - 05.18 IMAR, Bucharest: Workshop for Young Researchers in Mathematics
 - 04.18 Matemale: Winter school on the coloured Jones polynomial and solvable approximations
 - 02.18 CIRM (Luminy): École thématique CNRS Winter Braids VIII
 - 10.17 Paris Diderot: Colloque du GDR 2875, Topologie algébrique et applications
 - 09.17 Oxford: CMI-LMS research school on Algebraic topology of manifolds
 - 06.17 Münster: Conference on Groups, manifolds and K-theory
 - 05.17 Toulouse: Conference on Quantum topology and geometry
 - 04.17 Cambridge (Isaac Newton Institute): Workshop on Physics and knot homologies
 - 10.16 Bonn: Configuration spaces and moduli spaces in homotopy theory
 - 08.16 Berlin: Workshop on symplectic field theory
 - 07.16 Ancient Olympia: Conference "Knots in Hellas"
- 06-07.16 Lisbon: Conference on *Topology of manifolds*
 - 05.16 Bonn: Workshop on Categorification
 - 03.16 La Llagonne: Winter school on differentiable structures on spheres
 - 02.16 Lille: École thématique CNRS Winter braids VI
 - 11.15 Copenhagen: Workshop on Automorphisms of free groups
 - 10.15 Toulouse: Colloque du GDR 2875, Topologie algébrique et applications
- 09-10.15 Oxford: Clay workshop on Algebraic topology: manifolds unlocking higher structures
- 07-08.15 Bonn: Hausdorff trimester program Homotopy theory, manifolds, and field theories
 - 06.15 Münster: Workshop on *Functor calculus* (for which I was a co-organiser)
 - 05.15 Oberwolfach: seminar on Topological combinatorics of configuration spaces
 - 03.15 Oberwolfach: workshop on *Homotopy theory*
 - 09.14 Nantes: *Loop spaces in geometry and topology*
 - 07.14 London: Workshop on Homological methods in algebra, geometry and physics
 - 06.14 Dubrovnik: Conference on Manifolds, K-theory and related topics
 - 01.14 Berkeley: Introductory workshop of the MSRI Algebraic topology semester
 - 08.13 Copenhagen: Workshop and masterclass on homological stability
 - 05.13 Nantes: Conference on Algebra and topology
 - 03.13 Sheffield: British mathematical colloquium
 - 12.12 Oxford: Conference "Aspects of topology" in honour of Graeme Segal's 70th birthday
 - 09.12 ◆ Cambridge: British topology meeting
 - 07.12 Stanford: Symposium on Algebraic topology: applications and new directions
 - 07.12 Stanford: West coast algebraic topology summer school on Algebraic K-theory
- 05-06.12 Oberwolfach: seminar on Surgery theory
 - 04.12 Swansea: Workshop on ∞-categories, ∞-operads and homotopy type theory
 - 09.11 Oberwolfach: workshop on *Homotopy theory*
 - 09.11 Edinburgh: British topology meeting
 - 07.11 Utah (PCMI): Summer school on Moduli spaces of Riemann surfaces
 - 10.10 Bonn: Autumn school on Graphs, groups and surfaces
 - 09.10 Oxford: British topology meeting
 - 08.10 Oregon: Summer school on Operator algebras and conformal field theory
 - 08.10 Oregon: West coast algebraic topology summer school on *Homotopy theory of moduli spaces*