

CURRICULUM VITAE - KAREN VOGTMANN

PRINCIPAL FIELDS OF INTEREST

Geometric group theory, Low-dimensional topology, Cohomology of groups

EDUCATION

B.A. University of California, Berkeley 1971

Ph.D. University of California, Berkeley 1977

ACADEMIC POSITIONS

University of Warwick, Professor, 9/13 to present

Cornell University

– Goldwin Smith Professor of Mathematics Emeritus, 7/15 to present

– Goldwin Smith Professor of Mathematics, 7/11 to 7/15

– Professor, 1/94 to 7/11

– Associate Professor, 7/87 to 12/93

– Assistant Professor, 7/85 to 6/87

– Visiting Assistant Professor, 9/84 to 6/85

Columbia University, Assistant Professor, 7/79 to 6/86

Brandeis University, Visiting Assistant Professor, 9/78 to 12/78

University of Michigan, Visiting Assistant Professor, 9/77 to 6/78 and 1/79 to 6/79

RESEARCH AND SABBATICAL POSITIONS

MSRI, Berkeley, CA 8/19 to 11/19

Newton Institute, Cambridge, Mass, 3/17 to 5/17

MSRI, Berkeley, CA 8/16 to 12/16

Research Professor, ICERM, Providence, RI, 9/13 to 12/13

Freie Universität Berlin, Berlin, Germany, 6/12

Mittag-Leffler Institute, Stockholm, Sweden, 3/12 to 5/12

Visiting Researcher, Oxford University, Oxford, England, 2/12

Professeur invité, Marseilles, France, 5/11

Hausdorff Institute for Mathematics, 9/09 to 12/09 and 5/10-8/10

Mathematical Sciences Research Institute, Berkeley, CA, 8/07-12/07

I.H.E.S., Bures-sur-Yvette, France 3/04

Professeur Invité, Marseilles, France, 3/00

Mathematical Sciences Research Institute, Berkeley, 1/95 to 7/95

I.H.E.S., Bures-sur-Yvette, France, 1/92-8/93

Chercheur, C.N.R.S., E.N.S. de Lyon, France, 9/92-12/92

Mathematical Sciences Research Institute, Berkeley, 1/89 to 6/89
University of Illinois at Chicago, 1/88 to 6/88
Institute for Advanced Study, Princeton, 9/80 to 8/81

AWARDS AND HONORS

Pólya Prize, London Mathematical Society, June 2018
Honorary Doctorate, University of Copenhagen, November 2017
Simons Professor, Newton Institute, Spring 2017
Simons Professor, MSRI, Fall 2016
Plenary Lecture, European Congress July 2016
Clay Senior Scholar award, 2015
Humboldt Research Prize, 2014
Royal Society Wolfson Research Merit Award, 2014
Fellow of the American Mathematical Society (Inaugural class), 2012
European Mathematical Society Lecturer, 2011
AWM Noether Lecturer, 2007
Invited speaker, International Congress of Mathematicians, 2006
National Science Foundation Career Advancement Award, 1989
National Science Foundation Visiting Professorship for Women, 1984-85

RESEARCH GRANTS

National Science Foundation grants for summer research in mathematics 1978-79, 1983-2014
EPSRC grant for Warwick Symposium, 2017-18

PH.D. STUDENTS

Thomas Brady (1988)	F. Gerlits (2002)
Martin Bridson (1991)	Matt Horak (2003)
Debra Boutin (1998)	Brad Forrest (2009)
Craig Jensen (1998)	Owen Baker (2011)
Lisa Orlandi-Korner (1998)	Victor Kostyuk (2011)
G. Christopher Hruska (2002)	Juan Alonso (2012)

PROFESSIONAL SERVICE

SCIENTIFIC ADVISORY BOARDS

- Strategic Advisory Board, London School of Geometry and Number Theory (chair) (2019 -)
- Advisory Board, Cluster of Excellence "Mathematics Münster: Dynamics, Geometry, Structure" (2019 -)
- Conseille Scientifique, Fondation Mathématique Jacques Hadamard, (2019-)
- Scientific Advisory Board, Math Plus Berlin (2019 -)
- Scientific Advisory Board, Berlin Mathematical School (2015 - 2019)
- Conseil Scientifique Extérieur, Labex MILYON - Université Lyon (2011-)
- Scientific Advisory Committee, International Summer School of Mathematics for Young Students (2012-)
- U.S. National Committee for Mathematics (2009-2016)

- ArXiv Advisory Board (2004- 2016)
- Steering Committee, Park City Mathematics Institute (2010- 2014)
- Board on Mathematical Sciences and Their Applications of the National Academies (2010-2013)
- Research Advisory Panel, Mathematics, Simons Foundation (2011)
- Scientific Advisory Committee of the Mathematical Sciences Research Institute (2006-2010)
- Scientific Research Board of the American Institute of Mathematics (1998-2005)

EDITORIAL BOARDS

- Chair, Advisory Board, AMS Open Math Notes (2018-)
- Editorial Board, Geometry and Topology Monographs (2013-)
- Consulting Editor, Journal of the Edinburgh Math Society (2012-)
- Associate Editor, Journal of the AMS (2010- 2019)
- Editorial Board, Algebraic and Geometric Topology, (2006 - 2016)
- Associate Editor, Research/Expository surveys, Bulletin of the A.M.S. (1998-2000)

AMERICAN MATHEMATICAL SOCIETY

- Board of Trustees, American Mathematical Society (2008-2018 (chairman 2011 and 2016))
- Vice President, American Mathematical Society, (2003-2006)
- AMS Committee on Education (2003-2006)
- AMS delegate to ICIAM board (May 2005)
- Executive Committee, American Mathematical Society (1999-2003)
- AMS Committee on Meetings and Conferences (1997-2003), chairman (2000-2003)
- Member-at-Large, Council of the AMS (1997-2000)
- AMS Fellowship Committee 1989-90 (chairman 1990)

EXTERNAL REVIEW PANELS

- ETH, Zurich (2015)
- University of Texas at Austin (2013)
- University of Southern California (2010)
- CUNY (2008)
- University of Utah, (2007)
- University of Texas at Austin (2004)
- Rutgers University Newark (1997)

OTHER SERVICE

- UUK Working Group on Repositories, 2017
- Topology Panel, International Congress of Mathematicians, 2018
- National Science Foundation Committee of Visitors, 2013
- Topology Panel, International Congress of Mathematicians, 2010 (chair)
- U.S. Delegation to the International Mathematical Union General Assembly (2006, 2010 (chair in 2010))
- National Research Council Panel to evaluate the VIGRE program (2007-2008)
- Vietnam Education Foundation mathematics panel (June 2005)
- Selection committee, NSF graduate fellowships in Mathematics, 1994, 1996-99 (chairman1999)

- Selection committee, Gehman lectures, Seaway section of the MAA, 1997
- AWM Noether Lecturer selection committee 1991-1993 (chairman 1993)
- Reviewer, Math Reviews 1977-1990
- Served on numerous panels at the National Science Foundation
- Referee for numerous professional journals

SCIENTIFIC ORGANIZING COMMITTEES FOR CONFERENCES , WORKSHOPS, PROGRAMS

- (with I. Chatterji and L. Paris) Workshop on Artin Groups, CAT(0) Geometry and Related Topics, CIRM, Luminy, France, June 2020
- (with T. Delzant, G. Levitt and Y. Minsky) Aspects of Non-Positive and Negative Curvature in Group Theory, CIRM, Luminy, France, June 2019
- (with J. Aramayona, L. Ciobanu, S. Kim, C. Perin, C. Rivas and S. Taylow) Young Geometric Group Theory VIII, Bilbao, Spain, July 2019
- (with R. Charney) Geometry of outer spaces and outer automorphism groups, University of Warwick, April 2018.
- (with A. Bartels and W. Lueck) Oberwolfach Seminar Algebraic K- and L-Theory and Geometric Group Theory, October 2017
- (with B. Bowditch, C. Leininger, S. Schleimer and J. Smillie) Warwick Symposium on low-dimensional topology, group theory and dynamics, academic year 2017-2018.
- (with M. Bridson, L. Kramer, B. Remy) Geometric group theory, Oberwolfach, June 2017.
- (with I. Agol, M. Bestvina, C. Drutu, M. Feighn and M. Sageev) Jumbo program at M.S.R.I in Geometric Group Theory, Fall 2016.
- (with M. Bestvina, T. Delzant, D. Gaboriau, F. Paulin) Impact of geometric group theory, C.I.R.M. Luminy, July 2015.
- (with S. Kerckhoff, D. Gabai, J. Hubbard, J. Smillie and D. Thurston) What's Next? The mathematical legacy of Bill Thurston, June 2014
- (with M. Culler, D. Calegari, D. Gabai, J. Hass, R. Lipshitz, G. Walsh) Topology, geometry and group theory, informed by experiment, ICERM, Providence, RI, October 2013
- (with M. Bridson, L. Kramer and B. Remy) Geometric group theory, Oberwolfach, June 2013
- (with Cornell topologists) Topology Festival, Cornell University, 1986-2012.
- (with B. Farb, G. Niblo and D. Witte-Morris) Cohomological methods in geometric group theory, BIRS, Banff, November 2012
- (with M. Bestvina and M. Sageev) Park City/IAS summer math institute in Geometric Group Theory, July 2012
- (with Cornell topologists) Topology Festival, Cornell University, 1986-2012
- (with M. Bridson, M. Bucher-Karlsson, A. Karlsson, T. Smirnova-Nagnibeda) Geometric and Analytic Methods in Group Theory, Mittag-Leffler Institute, Spring 2012
- (with S. Hermiller, J. Meier and D. Webb), Approaches to Group Theory, a conference in honor of Ken Brown, October 2010.
- (with M. Bridson, L. Kramer and B. Remy) Non-positive curvature and geometric structures in group theory, Oberwolfach, April 2010
- (with M. Bestvina, J. McCammond and M. Sageev) Semester program in Geometric Group Theory, M.S.R.I., Berkeley, CA, Fall 2007
- (with M. Bestvina, J. McCammond and M. Sageev) Introductory workshop in Geometric Group Theory, M.S.R.I., Berkeley, CA, August 27-31 2007

(with R. Charney and I. Chatterji) Connections for Women: Classics of Geometric Group Theory, M.S.R.I., Berkeley, CA August 23-24, 2007

(with R. Charney) Special session on Geometric Group Theory, Annual meeting of the AMS, New Orleans, LA, January 2007

(with M. Bridson and P. Kropholler) Topological and geometric methods in group theory, Oberwolfach, Germany, April 2006

(with A. Chang, R. Charney, A. Grassi, C-L Terng, and K. Uhlenbeck) The Geometry of Groups, Program for Women in Mathematics, Institute for Advanced Study and Princeton University, Princeton, NJ, May 2005

(with S. Holmes and L. Billera) AIM workshop on Geometric models of biological phenomena, Palo Alto, CA, June 2003

(with G. Levitt) Special session at joint meeting of AMS and French Mathematical Society, Lyon, France, July 2001

(with H. Abels and P. Kropholler) Conference on Topological and Geometric Methods in Group Theory, Oberwolfach, Germany, January 2001

(with R. Alperin) A.M.S. Special Session on Geometric Methods in Combinatorial Group Theory, November 1989.

(with A. Borel and J. Harer) M.S.R.I. Workshop on Buildings and Arithmetic Groups, Berkeley, CA, May 1989

SELECTED INVITED ADDRESSES

Plenary Address, European Congress of Mathematicians, Berlin, Germany, July 2016

Keynote Lecture, Jahrestagung der Deutschen Mathematiker-Vereinigung (125th anniversary meeting of the DMV), Hamburg, Germany, September 2015

The 7th MSJ-Seasonal Institute, Hyperbolic Geometry and Geometric Group Theory (3 lectures), Tokyo, Japan August 2014

Groups St. Andrews (4 lectures), St. Andrews, Scotland, UK, August 2013

2011 European Math Society Lectures (Barcelona, Oxford, Stockholm)

Plenary Address, British Mathematical Colloquium, Leicester, England, April 2011

Felix Klein Lectures (6 lectures), Hausdorff Institute for Mathematics, Bonn, Germany, May-June 2010

Plenary address, AMS Spring Sectional Meeting, San Francisco, CA, April 2009

AWM Noether Lecture, New Orleans, LA, January 2007

Topology Section, International Congress of Mathematicians, Madrid, Spain, August 2006

ADDRESSES AT CONFERENCES IN HONOR OF COLLEAGUES

Aspects of non-positive and negative curvature in group theory (Bestvina fest), Luminy, France, June 2019

Groups, spaces and geometries on the occasion of Alessandra Iozzi's 60th birthday, ETH, Zurich, Switzerland, January 2019

Groupes, géométrie et analyse, in honor of Alain Valette, IHES, Bures-sur-Yvette, France, December 2018

Groups, geometry and representations, in honor of Dan Segal and Aner Shalev, Oxford, UK, September 2018

Wasatch Topology Conference, in honor of Mark Feighn, Utah, USA, August 2018

Groups, manifolds and K-theory, a conference on the occasion of Wolfgang Lueck's 60th birthday, Muenster, Germany, June 2017

Faces of Groups, in honor of Alex Lubotzkys 60th birthday, Jerusalem, Israel, November 2016

Conference on the Cohomology of Arithmetic Groups on the occasion of Joachim Schwermer's 66th birthday, Bonn, Germany, June 2016

Topology of manifolds: a conference in honour of Michael Weiss' 60th birthday, Lisbon, Portugal, June 2016

Groups 2012, Conference in honor of Bernd Fischer, Bielefeld, Germany, March 2012

Geometry and the Imagination, in honor of William P. Thurston's 60th birthday, Princeton, NJ, June 2007

Panorama of Topology, in honor of William Browder, Princeton, New Jersey, May 2012

Recent Developments in Topology, a conference honoring W.-C. Hsiang on the occasion of his 60th birthday, Princeton, NJ, October 1995

ALL INVITED LECTURES 2014- PRESENT

2019

Groups, spaces and geometries on the occasion of Alessandra Iozzi's 60th birthday, ETH, Zurich, Switzerland, January 2019

Geometric Analysis meets Geometric Topology, Heidelberg, Germany, February 2019

Colloquium, St. Petersburg State University, April 2019

Geometric and Asymptotic Group Theory with Applications, Tel Aviv, Israel, May 2019

Colloquium, Tel Aviv University, Tel Aviv, Israel, June 2019

Aspects of Non-Positive and Negative Curvature in Group Theory, CIRM, Luminy, France, June 2019

SYM 10 years, Copenhagen, Denmark, June 2019

Aspects of Geometric Group Theory (6 lectures), I.H.E.S., Bures-sur-Yvette, France, July 2019

Workshop on graph complexes in algebraic geometry and topology, University of Manchester, United Kingdom, September 2019

50th Anniversary of Bielefeld University, Bielefeld, Germany, September 2019

Patterns in cohomology of moduli spaces, Oxford, United Kingdom, September 2019

Topology Seminar, University of California, Berkeley, November 2019

Mathematical physics seminar, Humboldt University, Berlin, Germany, December 2019

2018

Colloquium, SISSA, Trieste, Italy, April 2018

Workshop on automorphism groups of RAAGs (2 lectures), University of Paris, Orsay, France, May 2018

Groups and Geometry in the Southeast, University of Warwick, Coventry, UK, June 2018

Structures in Local Quantum Field Theory, Les Houches, Switzerland, June 2018

International Conference on Manifolds, Groups and Homotopy, Isle of Skye, UK, June 2018

Wasatch Topology Conference, Utah, USA, August 2018

Groups, Geometry and Representations, Oxford, UK, September 2018

Colloquium du Laboratoire Dieudonné, Nice, France, September 2018

CGTA launch conference, Southampton, UK, September 2018
GdR Topologie Algébrique et Applications (3 lectures), Montpellier, France, October 2018
Géométrie et Dynamique dans les espaces de modules, IHP, Paris, France, December 2018
Conference in honor of Alain Valette, IHES, Bures-sur-Yvette, France, December 2018

2017

Topology seminar, University of Aberdeen, Scotland, UK, January 2017
Hot Topics workshop on Galois theory of periods and their applications, M.S.R.I., Berkeley, CA, USA, March 2017
Non-positive curvature seminar, Newton Institute, Cambridge, UK, April 2017
Workshop on braids in algebra, geometry and topology, Edinburgh, UK, May 2017
Georgia Topology Conference, Atlanta, GA, May 2017
Groups, manifolds and K-theory, a conference on the occasion of Wolfgang Lueck's 60th birthday, Muenster, Germany, June 2017
Group actions and cohomology in non-positive curvature, Isaac Newton Institute, Cambridge, England, June 2017
Geometric and Asymptotic Group Theory with Applications, Bilbao, Spain, July 2017
Ventotene International Workshops: Moduli Spaces (3 lectures), Ventotene, Italy, September 2017
Geometry and analysis on groups seminar, University of Vienna, Vienna, Austria, October 2017
Oberwolfach seminar on Algebraic K- and L-theory and geometric group theory (5 lectures), Oberwolfach, Germany, October 2017
Minicourse on the Lie algebra of symplectic derivations (4 lectures), University of Geneva, Geneva, Switzerland, November 2017
Colloquium, University of Copenhagen, Copenhagen, Denmark, November 2017
Groups in Madrid, Universidad Autonoma de Madrid, Spain, November 2017
Weihnachtsworkshop on Geometry and Number Theory, Saarbrücken, Germany, December 2017

2016

Colloquium, University of Sheffield, Sheffield, UK, February 2016
Young Geometric Group Theory workshop (4 lectures), Karlsruhe, Germany, February 2016
North British Geometric Group Theory Seminar, Edinburgh, Scotland, March 2016
Conference on Topological and Homological Methods in Group Theory, Bielefeld, Germany, April 2016
Workshop on Geometry of Groups (3 lectures), Montevideo, Uruguay, April 2016
Topology seminar, Oxford University, Oxford, UK, May 2016
Effective and Algorithmic Methods in Hyperbolic Geometry and Free Groups, ICERM, Providence, RI, USA, May 2016
Colloquium, Jussieu, Paris, France, May 2016
Conference on the Cohomology of Arithmetic Groups on the occasion of Joachim Schwermer's 66th birthday, Bonn, Germany, June 2016
Topology of manifolds: a conference in honour of Michael Weiss' 60th birthday, Lisbon, Portugal, June 27 - July 1, 2016.
Plenary Address, European Congress of Mathematicians, Berlin, Germany, July 2016
Topology seminar, U.C. Davis, October 2016

Colloquium, University of California, Berkeley, October 2016

Algebraic, Topological & Combinatorial Approaches to $Out(F_n)$ Summer School 2016 (3 lectures), Technion, Haifa, Israel, July 2016

Mapping class group and $Out(F_n)$ workshop, MSRI, November 2016

Faces of Groups: a conference in honor of Alex Lubotzky's 60th birthday, Jerusalem, Israel, November 2016

Colloquium, Stanford University, December 2016

2015

Minicourse (3 lectures), Perspectives in Lie theory program, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, February 2015

Geometry seminar, Cambridge University, United Kingdom, March 2015

Topology seminar, University of Münster, Germany, March 2015

Main speaker (3 lectures), Journées trans-Couesnon de théorie des groupes, Caen, France, March 2015

Colloquium, Southampton University, United Kingdom, April 2015

Workshop on Mapping Class Groups and $Out(F_n)$, Austin, TX, May 2015

Geometric Topology, Geometric Group Theory & Dynamical Systems, Dubrovnik, Croatia, June 2015

Brussels-London Geometry seminar, University College London, September 2015

Keynote Lecture, Jahrestagung der Deutschen Mathematiker-Vereinigung (125th anniversary meeting of the DMV), Hamburg, Germany, September 2015

SFB Seminar, Berlin, Germany, October 2015

Workshop on outer automorphisms of free groups (2 lectures), University of Copenhagen, Copenhagen, Denmark, November 2015

Tech topology conference, Georgia Institute of Technology, Athens, GA, USA, December 2015

Topology seminar, University of Grenoble, Grenoble, France December 2015

2014

Current Events Bulletin, Joint Mathematics Meetings, Baltimore, MD, January 2014

Asymptotic Properties of Groups, IHP, Paris, France, March 2014

Topology Seminar, University of Copenhagen, Copenhagen, Denmark, March 2014

Topology Seminar, Oxford University, Oxford, UK, April 2014

Plenary talk, Discrete Groups and Geometric Structures, Leuven, Belgium, June 2014

The 7th MSJ-Seasonal Institute, Hyperbolic Geometry and Geometric Group Theory (3 lectures), Tokyo, Japan August 2014

ICM satellite conference on Geometric Group Theory, KAIST, Daejeon, Korea, August 2014

Vector Bundles and Algebraic Cycles conference, Berlin, Germany, September 2014

Algebra seminar, K.T.H., Stockholm, Sweden, October 2014

Mathematical physics seminar, Cardiff University, Cardiff, Wales, October 2014

Colloquium, Bristol University, Bristol, England, October 2014

Colloquium, Durham University, Durham, England, November 2014

Conference on Multiple Zeta Values, Modular Forms and Elliptic Motives II, Madrid, Spain, December 2014

Colloquium, Université de Rennes, Rennes, France, December 2014

INVITATIONS ACCEPTED

Oberwolfach, February 2020

Birthday conference in honour of Dirk Kreimer, April 2020

Polyhedral products, Fields Institute, May 2020

Artin groups, CAT(0) geometry and related topics, CIRM, Luminy, France, June 2020

Oberwolfach, June 2020

Young Topologists Meeting, Stockholm, Sweden, July 2020

Conference on graph complexes, Berlin, September 2020

Banff workshop on cohomology of arithmetic groups, October 2021

PUBLICATIONS (IN REVERSE CHRONOLOGICAL ORDER)

1. *The Euler characteristic of $Out(F_n)$* , (with M. Borinsky) arxiv:1907.03543, submitted for publication.
2. *Cube complexes and abelian subgroups of automorphism groups of RAAGs*, (with B. Millard), to appear in *Math. Proc. Cambridge Philos. Soc.*, <https://doi.org/10.1017/S0305004119000501>
3. *On the bordification of Outer space*, (with K.-U. Bux and P. Smillie), *J. London Math Soc.* 98, Issue 1 (2018), 12–34.
4. *The topology and geometry of automorphism groups of free groups*, *Proceedings of the 2016 European Congress of Mathematicians*, EMS Publishing House, Zurich (2018), 181-202.
5. *Tethers and homology stability for surfaces*, (with A. Hatcher), *Algebr. Geom. Topol.* 17 (2017), no. 3, 1871–1916.
6. *Contractibility of Outer space: reprise*, *Hyperbolic Geometry and Geometric Group Theory*, *Advanced Studies in Pure Mathematics* 73 (2017), Math. Soc. Japan, 265–280.
7. *Outer space for untwisted automorphisms of right-angled Artin groups*, (with R. Charney and Nathaniel Stambaugh), *Geom. Topol.* 21 (2017), no. 2, 1131–1178.
8. *Assembling homology classes in automorphism groups of free groups*, (with J. Conant, A. Hatcher and M. Kassabov), *Commentarii Math. Helv.* 91 (2016), 751-806.
9. *$GL(n, \mathbb{Z})$, $Out(F_n)$ and everything in between: automorphism groups of RAAGs*, *London Mathematical Society Lecture Note Series 422: Groups St Andrews 2013*, 105-127, Cambridge University Press, 2015.
10. *Higher hairy graph homology*, (with J. Conant and M. Kassabov), *Geometriae Dedicata* 176 (2015), 345-374.
11. *On the geometry of Outer space*, *Bull. Amer. Math. Soc. (N.S.)* 52 (2015), no. 1, 27–46.
12. *Actions of arithmetic groups on homology spheres and acyclic homology manifolds*, (with M.R. Bridson, F. Grunewald and B. Zimmermann), *Math. Z.* 276 (2014), no. 1-2, 387–395.
13. *Hairy graphs and the unstable homology of $M(g,s)$, $Out(F_n)$ and $Aut(F_n)$* , (with J. Conant and M. Kassabov), *J Topology* (2013) 6(1): 119-153.
14. *The Dehn functions of $Aut(F_n)$ and $Out(F_n)$* (with M. R. Bridson), *Annales de l’institut Fourier*, 62 no. 5 (2012), p. 1811-1817.
15. *Abelian covers of graphs and maps between outer automorphisms of free groups*, (with M. R. Bridson), *Math. Ann.* 353 (2012), no. 4, 1069-1102.
16. *Subgroups and quotients of automorphism groups of RAAGs*, (with R. Charney), *Low-dimensional and Symplectic Topology - Proceedings of Symposia in Pure and Applied Math.*, Michael Usher ed University of Georgia, Editor - AMS, 2011.

17. *What is Outer space?*, **Notices of the AMS** 55, No. 7 (2008) 784-786.
18. *Automorphisms of two-dimensional RAAGs and partially symmetric automorphisms of free groups*, (with K.-U. Bux and R. Charney), **Groups, Geometry and Dynamics** 3 (4) (2009) 541-554.
19. *Actions of automorphism groups of free groups on spheres and acyclic manifolds*, (with Martin Bridson), **Commentarii Math. Helv.** 86 (1) (2011)
20. *Automorphisms of higher-dimensional right-angled Artin groups*, (with Ruth Charney), **Bull. London Math Soc.** (41) February (2009) 94-102.
21. *A presentation for $Aut(F_n)$* , (with H. Armstrong and B. Forrest), **J. of Group Theory** 11 (2008), 267-276.
22. *Automorphism groups of right-angled Artin groups*, (with Ruth Charney), **Guido's book of conjectures**, **L'Enseignement Mathematiques Monographie No. 40**, 2008.
23. *Automorphisms of two-dimensional right-angled Artin groups*, (with Ruth Charney and John Crisp), **Geometry & Topology** 11 (2007) 2227-2264.
24. *Morita classes in the homology of $Aut(F_n)$ vanish after one stabilization*, (with Jim Conant), **Groups, Geometry and Dynamics** 2 (1) (2008) 121-138.
25. *The cohomology of automorphism groups of free groups*, **Proceedings of the International Congress of Mathematicians, Madrid 2006**, European Mathematical Society Publishing House, Zurich, 2006.
26. *Erratum to: Homology stability for outer automorphism groups of free groups*, (with A. Hatcher and N. Wahl), **Algebr. Geom. Topol.** 6 (2006), 573-579.
27. *Automorphisms of free groups, surface groups and free abelian groups*, (with Martin Bridson), in **Problems on Mapping Class Groups and Related Topics**, ed by B. Farb, **Proc. Symp. Pure Math.** 74, Amer. Math. Soc., Providence RI, (2006).
28. *Automorphisms of free groups and outer space*, **Proceedings of the Conference on Geometric and Combinatorial Group Theory, Part I (Haifa, 2000)**. **Geom. Dedicata** 94 (2002), 1-31.
29. *Geometry of the space of phylogenetic trees* (with L. Billera and S. Holmes), **Advances in Applied Math** 27 (2001), 733-767.
30. *Automorphisms of automorphism groups of free groups* (with M. R. Bridson), **J. Algebra** 229 (2000), no. 2, 785-792.
31. *The symmetries of Outer space* (with M. R. Bridson), **Duke Math Journal** 106 (2001), 391-409.
32. *A Whitehead algorithm for surface groups* (with G. Levitt), **Topology** 39 (2000), no. 6, 1239-1251.
33. *An Equivariant Whitehead algorithm and conjugacy for roots of Dehn twists* (with S. Krstic and M. Lustig), **Proceedings of the Edinburgh Math Society** 44 (2001), 117-141.
34. *Rational homology of $Aut(F_n)$* (with A. Hatcher), **Mathematical Research Letters** 5 (1998), 759-780.
35. *The complex of free factors of a free group* (with A. Hatcher), **Quart. J. Math. Oxford Ser.(2)** 49 (1998), no. 196, 459-468.
36. *Cerf theory for graphs* (with A. Hatcher), **J. London Math. Soc.**, 58, part 3 (1998), 633-655.
37. *A group-theoretic criterion for property FA* (with M. Culler), **Proc. Amer. Math. Soc.** 124 (1996), no. 3, 677-683
38. *Homology stability for outer automorphism groups of free groups*, (with Allen Hatcher), **Algebr. Geom. Topol.** 4 (2004), 1253-1272.
39. *Morita classes in the homology of automorphism groups of free groups*, (with Jim Conant), **Geom. Topol.** 8 (2004), 1471-1499.
40. *Cut vertices in commutative graphs*, (with James Conant and Ferenc Gerlits), **Quart. J. Math** 56(3) (2005), 321-336.
41. *On a theorem of Kontsevich*, (with Jim Conant), **Algebr. Geom. Topol.** 3 (2003) 1167-1224.
42. *Infinitesimal operations on graph complexes*, (with James Conant), **Math. Ann.** 327 (2003), 545-573.

43. *Homomorphisms from automorphism groups of free groups*, (with Martin R. Bridson), *Bull. London Math. Soc.* 35 (2003), no. 6, 785–792.
44. *On the geometry of the group of automorphisms of a free group* (with M. Bridson), *Bull. London Math. Soc.* 27 (1995), 544-552.
45. *Isoperimetric inequalities for automorphism groups of free groups* (with A. Hatcher), *Pacific J. Math.* 173 (1996), no. 2, 425-441.
46. *End invariants of the group of outer automorphisms of a free group*, *Topology* 14 (1995) no. 3, 533-545..
47. *Length functions and outer space* (with J. Smillie), *Michigan Math J* 39 (1992) 485-493.
48. *Equivariant Outer space and automorphisms of free-by-finite groups* (with S. Krstic), *Comment. Math. Helvetici* 68 (1993) 216-262.
49. *Automorphisms of SL_2 of imaginary quadratic integers*, (with J. Smillie) *Proc. A.M.S.* 112 (1991) no. 3
50. *The boundary of outer space in rank two*, (with M. Culler) in *Arboreal Group Theory* (R. Alperin, ed) New York: Springer-Verlag (1991) 189-229.
51. *Local structure of some $Out(F_n)$ -complexes*, *Proc. Edinburgh Math Soc.* 33 (1990), 367-379.
52. *Automorphisms of graphs, p -subgroups of $Out(F_n)$ and the Euler characteristic of $Out(F_n)$* , (with J. Smillie) *J. Pure and Appl. Algebra* 49 (1987), 187-200.
53. *A generating function for the Euler characteristic of $Out(F_n)$* , (with J. Smillie) *J. Pure and Appl. Algebra* 44 (1987), 329-348.
54. *Moduli of graphs and automorphisms of free groups*, (with M. Culler) *Inventiones* 84 (1986), 91-119.
55. *Rational homology of Bianchi groups*, *Math. Ann.* 272 (1985), 399-419.
56. *The integral homology of SL_2 and $P SL_2$ over Euclidean imaginary quadratic integers*, (with J. Schwermer) *Comment. Math. Helv.* 58 (1983) no.4, 573-598.
57. *A Stieffel complex for the orthogonal group of a field*, *Comment. Math. Helv.* 57 (1982), no.1, 11-21.
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