

Johan Martens

Curriculum Vitae

School of Mathematics, The University of Edinburgh, Edinburgh, EH9 3FD, United Kingdom
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- PERSONAL** Born October 5th, 1977.
Belgian citizen. Married, 1 child.
- LANGUAGE SKILLS** Fluent in Dutch, English, French. Notions of German and Italian.
- RESEARCH INTERESTS** Algebraic & Symplectic Geometry and their interactions with Representation Theory & Physics; Geometry of Moduli Spaces.
- EDUCATION**
- Columbia University, New York** **2000-2005**
Ph.D., Mathematics, October 2005.
Ph.D. advisor: Prof. Michael Thaddeus.
M.Phil., Mathematics, May 2002.
- University of Oxford (Balliol College)** **1999-2000**
M.Sc. Geometry, Mathematical Physics and Analysis.
awarded Distinction (maximum attainable grade), September 2000.
Dissertation advisor: Prof. Nigel Hitchin.
- University of Antwerp (Belgium)** **1995-1999**
Licentiaat (B.Sc.), Pure Mathematics, September 1999.
awarded Summa cum Laude each year.
Dissertation advisor: Prof. Jan Naudts.
Kandidaat, Pure and Applied Mathematics, July 1997.
awarded Summa cum Laude each year.
- University Paris VI - Pierre et Marie Curie** **Spring 1999**
Erasmus exchange student in maîtrise program.
- Aarhus University (Denmark)** **June 2012**
Adjunktpædagogikum (teaching certification for higher education).
- EMPLOYMENT**
- School of Mathematics, University of Edinburgh (UK)**
Chancellor's Fellow and Lecturer August 2013 – present
- Centre for Quantum Geometry of Moduli Spaces (QGM), Aarhus University (Denmark)**
Postdoctoral Fellow January 2010 - July 2013
- Department of Mathematics, University of Toronto (Canada)**
Postdoctoral Fellow 2005-2009 – on leave 2006-2007

- RESEARCH VISITS **IMECC, University of Campinas (Brazil)**
 FAPESP Postdoctoral Fellow Fall 2009
- Max-Planck-Institut für Mathematik, Bonn (Germany)**
 Member 2006-2007
- PUBLICATIONS & PREPRINTS
- J. Hilgert, C. Manon and J. Martens, Contractions of Hamiltonian K -spaces, preprint, 39 pages, arXiv:1509.06406.
- J.E. Andersen, B. Himpel, S. F. Jørgensen, J. Martens and B. McLellan, *The Witten–Reshetikhin–Turaev invariant for links in finite order mapping tori I*, preprint, 41 pages, arXiv:1408.2499.
- J. Martens and M. Thaddeus, *Variations on a Theme of Grothendieck*, preprint, 27 pages, arXiv:1210.8161.
- J. Martens and M. Thaddeus, *On Non-Abelian Symplectic Cutting*, Transform. Groups, 17 (2012), no. 4, 1059–1084, doi:10.1007/s00031-012-9202-9, arXiv:1202.3077.
- J. Martens and M. Thaddeus, *Compactifications of Reductive Groups as Moduli Stacks of Bundles*, preprint, 40 pages, to appear in *Compositio Math*, doi:10.1112/S0010437X15007484, arXiv:1105.4830.
- M. Logares and J. Martens, *Moduli of Parabolic Higgs Bundles and Atiyah Algebroids*, Journal für die Reine und Angewandte Mathematik (Crelle’s Journal), 649 (2010), 89-116, doi:10.1515/CRELLE.2010.090, arXiv:0811.0817.
- J. Martens, *Equivariant Volumes of Non-Compact Quotients and Instanton Counting*, Comm. Math. Phys. 281 (2008), no. 3, 827–857, doi:10.1007/s00220-008-0501-x, arXiv:math/0609841.
- J. Martens, *Instanton Counting through Non-Abelian Localization*, Ph.D. Dissertation, Columbia University (2005).
- J. Martens, *The Vinberg Monoid and Some of its Applications*, MFO Reports 27, 2014, 23–26, doi: 10.4171/OWR/2014/27.
- SEMINAR & CONFERENCE TALKS
- Séminaire d’algèbre, topologie et géométrie, University of Nice, December 2015.
- ARTIN Workshop, Glasgow, November 2015.
- Geometry Seminar, EPFL Lausanne, April 2015.
- GLEN Seminar, Edinburgh, October 2014.
- Workshop on Geometry, Topology and Physics of Moduli Spaces of Higgs Bundles, NUS Singapore, July 2014.
- Geometry and Analysis Seminar, Oxford University, June 2014.
- Workshop Okounkov Bodies and Applications, MFO Oberwolfach, May 2014.

Geometry and Topology Seminar, University of Glasgow, March 2014.
EDGE Seminar, University of Edinburgh, November 2013.
Joint EMS-DMF meeting, Quantum and Riemannian geometry section, March 2013.
Algebraic Geometry and Moduli Seminar, ETH Zürich, March 2012.
Algebra & Combinatorics Seminar, University of Coimbra, December 2011.
Geometria em Lisboa Seminar, IST Lisbon, December 2011.
Geometry and Topology Seminar, University of Porto, December 2011.
Conference on Principal G -bundles, ICMAT, Madrid, September 2011.
Vector Bundles on Algebraic Curves, Newton Institute, Cambridge, June 2011.
Séminaire Algèbre et Géométrie, Institut Fourier, Grenoble, June 2011.
Algebra and Geometry Seminar, University of Amsterdam, June 2011.
Symplectic Seminar, University of Toronto, May 2011.
FRAGmeNT Seminar, University of Colorado at Boulder, March 2011.
Representation Theory Seminar, CUNY Graduate Center, March 2011.
Topology Seminar, University of Copenhagen, November 2010.
Nielsen Workshop, University of Aarhus, October 2010.
Algebra Seminar, IMPA, Rio de Janeiro, December 2009.
Nielsen Workshop, University of Aarhus, October 2009.
Workshop on Algebraic Geometry and Physics, Maresias, September 2009.
Vector Bundles on Algebraic Curves, FU Berlin, June 2009.
GAeL, Lorentz Center, Leiden, June 2009.
Atiyah80 Plus, ICMS, Edinburgh, April 2009.
Differential Geometric Methods in Algebraic Geometry, TIFR, Mumbai, April 2009.
Algebraic Geometry Seminar, Columbia University, February 2009.
Geometry and Topology Seminar, University of Waterloo, October 2008.
Symplectic Geometry Seminar, University of Toronto, September 2008.
Analysis Seminar, Johns Hopkins University, March 2008.
Geometry and Topology Seminar, University of Porto, Feb. & June 2008.
Geometry and Topology Seminar, McMaster University, October 2007.
Geometria em Lisboa Seminar, IST Lisbon, June 2007.
Geometry and Analysis Seminar, Oxford University, June 2007.
Algebraic Geometry Seminar, Ohio State University, April 2007.
Geometry Seminar, IMPA, Rio de Janeiro, January 2007.
Poisson geometry and mathematical physics session, CMS Winter Meeting, Toronto, December 2006.
Geometry and Topology Seminar, University of Utrecht, December 2006.
Gauge Theory Seminar, MPI Bonn, October 2006.

Algebraic Geometry Seminar, University of Toronto, March 2006.
Algebraic Geometry Seminar, Queen's University, January 2006.
Quantum Field Theory Seminar, Oxford University, November 2005.
Symplectic Geometry Seminar, University of Toronto, September 2005.
Summer Institute in Algebraic Geometry, Seattle, August 2005.
Algebraic Geometry Seminar, Columbia University, May 2005.
Topology/Geometry Seminar, Rutgers University, April 2005.
Workshop on L^2 cohomology and String Theory, American Institute of Mathematics, March 2004.

TEACHING

The University of Edinburgh

Calculus and its Applications, Winter 2014 (Co-Instructor) and Winters 2015 & 2016 (Co-Instructor and Course Organiser).
SMSTC Algebra (Graduate Course), Fall 2015, Co-Instructor.

Aarhus University

Smooth Manifolds, Group Actions and Moduli Spaces I & II, 2012-13, MSc Course, Co-Instructor (3/4).
Conformal Field Theory, Winter and Spring 2012, PhD course, Co-Instructor (1/3).
Topological Quantum Field Theories and Moduli Spaces, Winter and Spring 2011, PhD course, Instructor.
Moduli Spaces of Vector Bundles on Riemann Surfaces, Fall 2010, PhD course, Instructor.
Higgs Bundles and the Geometric Langlands Program, Winter and Spring 2010, PhD course, Co-Instructor (1/2).

University of Toronto

Linear Algebra II, Instructor, Fall 2008.
Introduction to Ordinary Differential Equations, Instructor & Course Co-ordinator, Fall 2008.

University of Toronto at Scarborough

Classical Plane Geometries and their Transformations, Instructor, Fall 2007.
Calculus for Biological Sciences, Instructor, Spring 2006, Spring 2008.
Calculus I, Instructor, Fall 2005.

Columbia University

Linear Algebra, Instructor, Summer 2005.
Commutative Algebra and Algebraic Geometry (graduate course), Round Table leader, Fall 2004, Spring 2005.
Ordinary differential equations, Teaching Assistant, Spring 2004.
Calculus IA, Instructor, Summer 2004, Fall 2003.
Calculus IIA, Instructor, Spring 2003.

College Algebra and Analytic Geometry, Instructor, Fall 2002.

Mathematica recitation for Calculus IS and IIS, Teaching Assistant, Fall 2001, Spring 2001.

OTHER

Reviewer for MathSciNet.

Referee for various journals.

Co-organizer, QGM Seminar, Aarhus University, 2011-13.

Organizer, Symplectic Geom. Seminar, University of Toronto, 2007-08.

Organizer, Columbia-Stony Brook Junior Geometry Seminar, 2003-05.

Organizer, IMAGINARY exhibit in Steno Science Museum, Aarhus, 2013.

Co-Author of successful grant application for Danish/Indian Collaboration Program for QGM (December 2012), valued at 4m DKK = 530k EUR.

FAPESP grant 2009/05136-2.

Faculty Fellowship, Columbia University 2000-05.

BAEF Graduate Fellowship, 2000-2001.