

Curriculum Vitae

Personal

Name: Martin Herschend
Date of birth: 13th July 1981
Nationality: Swedish
Business address:
Uppsala University
Department of Mathematics
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Sweden
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Languages

Swedish (Native), English (Fluent), German (Basic), Japanese (Basic)

Education

2000–2003 Student at Uppsala University.
2003–2008 Graduate student at the Graduate School in Mathematics and Computing,
Uppsala University (Advisor: Professor Ernst Dieterich).

Degrees

2003 Master of Science.
Main subject: Mathematics
Uppsala University
Name of thesis: *Solution to the Clebsch-Gordan Problem for Kronecker Representations*
2005 Licentiate Degree in Mathematics.
Uppsala University
Name of thesis: *On the Clebsch-Gordan Problem for Quiver Representations*
2008 Doctoral Degree in Mathematics.
Thesis successfully defended on 22 May 2008
Uppsala University
Name of thesis: *On the Clebsch-Gordan Problem for Quiver Representations*

Professional experience

2001–2003 Amanuens (Teaching Assistant) at Uppsala University.
2003–2008 Graduate student at Uppsala University (20% teaching, 80% research)
2008–2010 Japan Society for Promotion of Science Postdoctoral Fellow in Mathematics
at Nagoya University (Host: Professor Osamu Iyama).
2011–2011 Temporary Associate Professor (Førsteamanuensis) of Mathematics at Nor-
wegian University of Science and Technology, Trondheim.
2011–2013 Designated Associate Professor of Mathematics for the G30 program at the
Graduate School of Mathematics, Nagoya University.
2013– Senior Lecturer at the Department of Mathematics at Uppsala University.

Scientific publications

- 2005 Herschend, M. Solution to the Clebsch–Gordan problem for representations of quivers of type \hat{A}_n . *J. Algebra Appl.*, 4(5):481–488.
- 2005 Darpö, E., Dieterich, E., and Herschend M. In which dimensions does a division algebra over a given ground field exist? *Enseign. Math. (2)*, 51(3–4):255–263.
- 2007 Herschend, M. Galois coverings and the Clebsch–Gordan problem for quiver representations. *Colloq. Math.*, 109(2):193–215.
- 2008 Herschend, M. Tensor products on quiver representations. *J. Pure Appl. Algebra*, 212(2):452–469.
- 2008 Herschend, M. On the representation rings of quivers of exceptional Dynkin type. *Bull. Sci. Math.*, 132(5):395–418.
- 2009 Herschend, M. On the representation ring of a quiver. *Algebr. Represent. Theory*, 12(6):513–541.
- 2010 Darpö, E. and Herschend, M. On the representation ring of the polynomial algebra over a perfect field. *Math. Z.*, 265(3):601–615.
- 2010 Herschend, M. Solution to the Clebsch–Gordan problem for string algebras. *J. Pure Appl. Algebra*, 214(11):1996–2008.
- 2011 Herschend, M. and Iyama O. n -representation-finite algebras and fractionally Calabi–Yau algebras. *Bull. London Math. Soc.*, 43(3):449–466.
- 2011 Herschend, M. and Iyama O. Selfinjective quivers with potential and 2-representation-finite algebras. *Compos. Math.* 147(6):1885–1920.
- 2013 Herschend, M., Iyama O. and Oppermann S. n -representation infinite algebras. *Adv. Math.* 252(15):292–342
- 2014 Herschend, M., Iyama O., Minamoto H. and Oppermann S. Representation theory of Geigle–Lenzing complete intersections. Preprint: arXiv:1409.0668, 77 pages.

Grants Kakenhi: Grant-in-Aid for Young Scientists (B). Project number 24740010. (3 years).

Short term research visits

- 2009, 8–19/3 NTNU, Trondheim
- 2010, 3–17/6 Beijing Normal University
- 2010, 1–12/12 Nagoya University

Conference talks

- 2004, 22–27/6 *Solution to the Clebsch–Gordan problem for Kronecker representations.* Representation theory and its applications, Uppsala University.
- 2004, 8–10/10 *Solution to the Clebsch–Gordan problem for representations of a class of extended Dynkin quivers.* International conference on representations of algebras and related topics, Northeastern University, Boston, Massachusetts.

- 2005, 8–10/12 *Galois coverings and the Clebsch-Gordan problem for quiver representations.* Algebraic versus analytic representations, Kyiv.
- 2006, 10–11/6 *The Clebsch-Gordan problem for quiver representations.* Skandinavisk minikonferens i algebra och geometri, Stockholm University.
- 2007, 15–24/8 *On the Clebsch-Gordan problem for quiver representations.* XII International conference on representations of algebras and workshop, Torun.
- 2008, 7–10/10 *On the representation ring of the polynomial algebra over a perfect field.* Expansion of Combinatorial Representation Theory, Kyoto.
- 2008, 20–21/11 *On the Clebsch-Gordan problem for quiver representations.* Representation Theory of Finite Groups and Algebras, and Related Topics, Kyoto.
- 2009, 2–6/3 *Solution to the Clebsch-Gordan problem for string algebras.* Workshop on Representations and Cohomology, Köln.
- 2009, 10–15/5 *The Clebsch-Gordan problem for string algebras.* 12th Symposium on Representation Theory of Algebraic groups and Quantum groups, Katsuura, Japan.
- 2009, 10–12/10 *The Clebsch-Gordan problem for quiver representations.* 42nd Symposium on Ring and Representation Theory, Osaka.
- 2010, 18/1–5/2 *2-representation-finite algebras and selfinjective quivers with potential.* Advanced School and Conference on Homological and Geometrical Methods in Representation Theory, ICTP, Trieste.
- 2010, 11–15/8 *Selfinjective quivers with potential and 2-representation-finite algebras.* XIV International Conference on Representations of Algebras, Tokyo.
- 2011, 25–27/9 *n-representation infinite algebras.* 44th Symposium on Ring Theory and Representation Theory, Okayama.
- 2012, 1–3/5 *n-representation infinite algebras constructed from skew-group algebras.* Conference on resolution of singularities and the McKay correspondence, Nagoya.
- 2012, 6–11/5 *Skew group and higher preprojective algebras.* Linking representation theory, singularity theory and non-commutative algebraic geometry, Banff.
- 2012, 8–17/8 *2-hereditary algebras and quivers with potential.* XV International conference on representations of algebras and workshop, Bielefeld.
- 2012, 7–9/10 *2-hereditary algebras and quivers with potential.* 45th Symposium on Ring and Representation Theory, Matsumoto, Nagano.
- 2013, 7–9/5 *n-representation finite algebras (4 lectures).* Workshop on Higher Dimensional Auslander-Reiten Theory, IPM-Isfahan Branch, Isfahan, Iran.
- 2013, 24–28/6 *Geigle-Lenzing spaces and canonical algebras in dimension d.* The 2nd Pacific Rim Mathematical Association Congress, Shanghai Jiao Tong University, Shanghai, China.
- 2014, 25–29/8 *2-representation-finite algebras from one dimensional hypersurfaces.* XVI International Conference on Representations of Algebras, TSIMF, Sanya, China.

Teaching experience

At Uppsala University:

2002–2005	Various problem sessions.
2006, fall	Introduction to mathematics K, STS, X. Basic algebra X.
2007, fall	Basic course in mathematics K. At NTNU, Trondheim:
2011, spring	Elementary discrete mathematics, MA0301. At Nagoya University:
2011, fall	Linear algebra I, Introduction to representation theory of associative algebras, Mathematics tutorial I, (with Fabien Trihan).
2012, spring	Linear algebra II, Mathematics tutorial II, (with Fabien Trihan).
2012, fall	Linear algebra I, Mathematics tutorial I, (with Fabien Trihan).
2013, spring	Linear algebra II, Topics in representation theory I, Mathematics tutorial II, (with Laurent Demonet). At Uppsala University:
2013, fall	Linear Algebra and Geometry I.
2014, spring	Linear Algebra II, Algebra I.
2014, fall	Linear Algebra II, Algebra for PhD students

Pedagogical education

2005	Uppsala University's pedagogical course for university teachers (Pedagogisk kurs för universitetslärare). Four weeks.
2013	Course in advising PhD students at Uppsala University (Handledarutbildning för Teknisk-naturvetenskaplig fakulteten). One week.