

EHUD MEIR
Curriculum Vitae

CONTACT DETAILS

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Nationality: Israeli

Date and Place of Birth: 28.09.1985 in Rehovot, Israel

Languages:

- English- fluent.
- Hebrew- fluent.
- German- fluent.
- French- basic.
- Danish- basic.

POSITIONS

2018 - present	University of Aberdeen Senior lecturer
2015-2018	University of Hamburg Postdoc. Member of the Research training group 1670, “Mathematics inspired by string theory and quantum field theory”
2012 - 2015	University of Copenhagen Postdoc, Centre for Symmetry and Deformation
2010 - 2012	EPDI fellowship The fellowship included stays at the IHES, the Isaac Newton Institute in Cambridge, and the Max Planck Institute in Bonn.

EDUCATION

- 2018 University of Hamburg. Habilitation. Title: Hopf algebras and other algebraic structures by symmetric monoidal categories and invariant theory.
- 2007 - 2010 Technion – Israel Institute of Technology. Ph.D in mathematics.
Thesis supervisors: Prof. Eli Aljadeff and Prof. Shlomo Gelaki.
Thesis title: On certain cohomological properties of a group and their reflection in a finite index subgroup.
- 2005 - 2006 Technion – Israel Institute of Technology. M.Sc in mathematics, Summa Cum Laude.
- 2001 - 2005 Technion – Israel Institute of Technology. B.A. in mathematics, Summa Cum Laude.
The studies for the B.A. degree were in part via the Technion excellence program for high school students, and in part via the Technion Chaise Family Excellence Program.

RESEARCH INTERESTS

Representation theory. Invariant theory. Hopf algebras. Fusion and tensor categories. Cohomology of groups.

PUBLICATIONS AND PREPRINTS

1. Ehud Meir- Universal rings of invariants. Submitted. arXiv:2007.03845.
2. Tyrone Crisp, Ehud Meir and Uri Onn- An inductive approach to representations of general linear groups over compact discrete valuation rings. Submitted. arXiv:2005.05553.
3. Mark Grant, Ehud Meir and Irakli Patchkoria- Equivariant dimensions of groups with operators. Submitted. arXiv:1912.01692.
4. Vincent Koppen, Ehud Meir and Christoph Schweigert- Isotypic decomposition of non-semisimple Hopf algebras. Received a favorable report recommending acceptance after minor modifications for publication in Algebras and Representation Theory. arXiv: 1910.13161.
5. Ehud Meir, with an appendix by Dejan Govc- Invariant rings and representations of the symmetric groups. arXiv:1907.12936. Submitted.
6. Ehud Meir- Geometric perspective on Nichols algebras. Submitted. arXiv:1907.11490
7. Juan Cuadra and Ehud Meir- Non-existence of Hopf orders for a twist of the alternating and symmetric groups. Journal of the London Math-

- emathical Society, Volume 100, Issue 1, August 2019, Pages 137-158. arXiv:1804.01121
8. Ehud Meir- Hopf cocycle deformations and invariant theory. *Mathematische Zeitschrift*, Volume 294, pages 1355-1395 (2020) arXiv:1804.00289.
 9. Tyrone Crisp, Ehud Meir and Uri Onn- Principal series for general linear groups over finite commutative rings. arXiv:1704.05575. Submitted.
 10. Ehud Meir and Markus Szymik- Adams operations and symmetries of representation categories. Accepted for publication in *Indiana University Mathematics Journal*. arXiv:1704.03389
 11. Ehud Meir- Semisimple Hopf algebras via Geometric Invariant Theory. *Advances in Mathematics* Volume 311, 30 April 2017, Pages 61-90. arXiv:1506.00314
 12. Tyrone Crisp, Ehud Meir and Uri Onn- A variant of Harish-Chandra functors. *J. Inst. Math. Jussieu*. Volume 18, Issue 5 (2019), 993-1049. Published online in 2017. arXiv:1607.04486.
 13. Ehud Meir- Descent, fields of invariants and generic forms via symmetric monoidal categories. *Journal of Pure and Applied Algebra* 220 (2016), 2077-2111. arXiv: 1406.6928
 14. Juan Cuadra and Ehud Meir- Orders of Nikshych's Hopf algebra. *Journal of noncommutative geometry* Volume 11, Issue 3, 2017, pp. 919-955 arXiv:1405.2977.
 15. Juan Cuadra and Ehud Meir- On the existence of orders in semisimple Hopf algebras. *Transactions of the American Mathematical Society*, Volume 368 (4), (2016), 2547-2562. arXiv:1307.3269
 16. Ehud Meir and Markus Szymik- Drinfeld centers for bicategories and homotopy theory. *Documenta Mathematica* 20, (2015) 707-735. arXiv 1412.4487.
 17. Nir Ben David, Yuval Ginosar and Ehud Meir - Isotropy in group cohomology. *Bulletin of the London Mathematical Society*, Volume 46 (3), (2014), 587-599. arXiv: 1309.2438
 18. Ehud Meir- Every central simple algebra is Brauer equivalent to a Hopf Schur algebra. *Illinois J. Math.* 56(2) (2012), 423-432. arXiv: 1001.0157
 19. Ehud Meir and Evgeny Musicantov- Module categories over graded Fusion categories. *Journal of Pure and Applied Algebra* 216 (11) (2012), 2449-2466 arXiv: 1010.4333

20. Ehud Meir- Projective resolutions for modules over infinite groups. Algebras and representation theory, Volume 15 (2) (2012), 391-405. arXiv: 1006.0129
21. Eli Aljadeff and Ehud Meir- Nilpotency of Bocksteins, Kropholler's hierarchy and a conjecture of Moore. Advances in mathematics 226 (2011) 4212-4224. arXiv: 0905.1459
22. Ehud Meir- Group extensions as G-graded fusion categories. An appendix for the paper "Fusion categories and homotopy theory" by Pavel Etingof, Dmitri Nikshych and Victor Ostrik. Quantum Topology, 1 (2010), 209-273. arXiv: 0909.3140
23. Ehud Meir- The cohomological restriction map and FP-infinity groups. Bulletin of the London Mathematical Society 42 (6) (2010) 1101-1114. arXiv: 0911.3267
24. Eli Aljadeff, Juan Cuadra, Shlomo Gelaki and Ehud Meir- On the Hopf Schur group of a field- Journal of Algebra 319 (12) (2008) 5167-5177. arXiv: 0708.1943
25. Ehud Meir- An explicit formula for the action of a finite group on a commutative ring. Journal of Pure and Applied Algebra 211 (1) (2007) 43-49. arXiv: 0707.2167

PAPERS IN PREPARATION

1. Ehud Meir- Interpolations of symmetric monoidal categories by invariant theory.

THIRD BODY FUNDING

Pending application for the EPSRC New Horizons scheme.

AWARDS and PRIZES

- Fondation Sciences Mathematiques de Paris postdoc for 2012/3 ; declined.
- 2010-12: EPDI fellowship 2010-2012
- 2011: Elisha Netanyahu award for Ph.D. Thesis.
- 2010: Technion prize for excellence in teaching.
- 2009: Professor Haim Hanani award for advancement in Ph.D degree.
- 2005: Faculty excellence award for the M.Sc degree.

CONFERENCES

- 57th ARTIN meeting- Tensor categories, quantum groups, and related topics. June 2020. Talk: Applications of Geometric invariant theory to Hopf algebras.

- Quantum groups and their analysis. Oslo, Norway. August 2019. Talk: Geometric invariant theory and Hopf algebras.
- Sym 10 years old. Copenhagen, Denmark. June 2019. Talk: Representations of general linear groups over local rings
- Antipode Workshop. Brussels, Belgium. March 2018. Talk: Geometric invariant theory and Hopf 2-cocycles
- Workshop on tensor categories, Hopf algebras and quantum groups. Marburg, Germany. January 2018. Talk: Hopf algebras, monoidal categories and geometric invariant theory.
- Brussels Hopf algebra workshop 2017. Brussels, Belgium. August 2017. Talk: Hopf algebras, monoidal categories and geometric invariant theory.
- Conference on Hopf Algebras and Noncommutative Geometry (in honor of the 70th birthday of Professor Fred Van Oystaeyen). Hefei, China. August 2017. Talk: Hopf algebras, monoidal categories and geometric invariant theory
- Lessons from conformal field theory. Hamburg, Germany. June 2017. Talk: Symmetric monoidal categories, Deligne theory and algebraic structures.
- Topological quantum groups and Hopf algebras. Banach Center, Warsaw, Poland. November 2016. Talk: Applications of geometric invariant theory to Hopf algebras
- Lie Theory and Geometry. Castle Rauischholzhausen, Germany. March 2016. Organized by the University of Giessen and the University of Marburg. Plenary talk: Hopf algebra invariants, symmetric monoidal categories and geometric invariant theory.
- Workshop on Hopf algebras and related topics. Turin, Italy. January 2016. Talk: Descent and invariants via Deligne's Theory of symmetric monoidal categories.
- Algebra and Number Theory day, Technion, Israel. December 2015. Talk: Descent and invariants via Deligne's Theory of symmetric monoidal categories.
- New trends in Hopf algebras and tensor categories, Brussels, Belgium. June 2015. Talk: Hopf algebras via geometric invariant theory.
- From Poisson Brackets to Universal Quantum Symmetries, IMPAN, Warsaw, Poland, August 2014. Talk: "Deformations of braidings by monoidal categories".
- First Joint International Meeting of the Italian and Spanish mathematical societies. Bilbao, Spain. July 2014. Talk in the session on Rings, modules, categories and applications: Descent and generic forms via symmetric monoidal categories

- Galois groups and Brauer groups, Technion, Haifa, Israel. January 2013. Talk: “On orders of finite dimensional semisimple Hopf algebras”
- Harmonic analysis, deformation quantization and noncommutative geometry, Scalea, Italy. September 2011. Informal talk: On module categories over graded fusion categories.
- Hopf algebras and tensor categories, University of Almeria, Spain. July 2011. Talk: On module categories over graded fusion categories.
- Amitsur Memorial Symposium, Ben Gurion University, Beer Sheva, Israel. May 2011. Talk: On simple quotients of finite dimension Hopf algebras.
- Quantum groups conference, Clermont Ferrand, France. September 2010. Talk: On the Hopf Schur group of a field
- Conference on Brauer groups, Kibbutz Ketura, Israel, January, 2010. Talk: On the Hopf Schur group of a field
- Colloquium on Hopf algebras, Quantum groups and tensor categories, Cordoba, Argentina, September 2009. Talk: On the Hopf Schur group of a field
- Workshop on Representations and Cohomology, University of Cologne, March, 2009. Talk: Moore’s conjecture and nilpotency of certain cohomology elements
- Israel mathematical union annual meeting, 2007, Ben Gurion University, Beer Sheva, May 2007. Talk: Is any central simple algebra Brauer equivalent to the quotient of a Hopf algebra?

SELECTED SEMINAR TALKS

- Newcastle Algebra seminar, October 2019.
- Royal Holloway Algebra seminar, October 2019.
- University of Glasgow Algebra seminar. April 2019.
- University of Warwick, Algebraic Geometry Seminar. November 2018.
- Technische Universität Dresden Algebra seminar, Germany. July 2018.
- Institut de Mathematique de Toulouse (IMT). March 2018.
- Universite Pierre et Marie Curie (Paris 6). Seminar ‘Varietes Rationnelles’. September 2017 and March 2013.
- Charles University, Prague. May 2017.
- UNAM Morelia, Seminario de Teoria de Categorias. Series of three lectures on tensor categories. May 2017.
- Seminar Bremen-Hamburg-Kiel. Hamburg, February 2016.
- University of Strasbourg, Seminar Quantique. November 2015 and October 2015.
- Norwegian University of Science and Technology, Trondheim, Norway, March 2015.

- University of Coimbra, Portugal. March 2015.
- Heidelberg University, Hauptgeometrie Seminar. November 2014
- Universite Pierre et Marie Curie (Paris 6). Algebra Seminar. November 2011
- Universidad de los Andes, Bogota, Colombia. Algebra Seminar. November 2011
- Universite Paris Nord (13), Algebraic Topology Seminar. October 2011
- University of Cambridge Algebra Seminar. March 2011
- University of Cambridge Category Theory Seminar. March 2011 University of Aberdeen Algebra Seminar. May 2011.
- University of Oxford Algebra Seminar. February 2011.
- University of Aarhus Algebra Seminar. February 2010.
- MIT Noncommutative Algebra Seminar. March 2009.
- Hebrew University in Jerusalem Algebra Seminar. January 2009.

PROFESSIONAL SERVICE

- Retention officer for year 3 and 4 students in the department of mathematics. Responsible for assisting struggling students. From September 2020.
- Organiser of the Aberdeen Algebra seminar. From September 2018.
- Co-organiser of the Pre-StringMath Summer School, University of Hamburg, July 2017.
- Co-organiser of the Algebra / Topology Seminar, University of Copenhagen, September 2013 to July 2015.
- Co-organiser of a seminar on fusion categories, Max Planck Institute for Mathematics, Spring 2012.
- Referee for the journals:
 - Journal of Pure and Applied Algebra
 - Applied Categorical Structures
 - Communications in Algebra
 - Glasgow Mathematical Journal
 - Proceedings of the London Mathematical Society
 - Forum Mathematicum
 - Letters in mathematical physics
 - Transactions of the American mathematical society
 - Advances in Mathematics
 - Pacific Journal of Mathematics
 - Reviewer for the AMS mathematical reviews
 - Reviewer for zbMATH

SUPERVISIONS

Ph.D Students

- Vincent Koppen (Defended June 2020. University of Hamburg. Joint supervision with Christoph Schweigert)
- Fawaz Aseeri (University of Aberdeen, started in 2019. Second supervisor. Main supervisor: Ben Martin)

Fourth year projects

- Cristiana Constantin (University of Aberdeen, first term 2018/19)
- Rick Ridder (University of Aberdeen, first term 2019/20)
- Christie Wilce (University of Aberdeen, first term 2020/21)
- James Turesson (University of Aberdeen, first term 2020/21)

TEACHING EXPERIENCE

Lecturer

University of Aberdeen

- First term 2020/21- Calculus 1.
- First term 2020/21- Mathematical foundations of everyday life.
- Second term 2019/20- Rings and Fields.
- Second term 2019/20- Number Theory.
- First term 2019/20- Calculus 1.
- Second term 2018/19- Number Theory.
- Second term 2018/19- Rings and Fields.
- First term 2018/19- Calculus 1.

University of Hamburg

- Summer Semester 2015/16- Introduction to algebraic groups.

University of Copenhagen

- Winter Semester 2014/15- Homological Algebra.
- Winter Semester 2013/14- Homological Algebra.
- Spring Semester 2012/13- Commutative Algebra.
- Winter Semester 2012/13- Homological Algebra.

Teaching Assistant

University of Hamburg

- Summer Semester 2017/18- Mathematics for Physicists 4.

- Winter Semester 2017/18- Mathematics for Physicists 3.
- Summer Semester 2016/17- Advanced Algebra.
- Winter Semester 2016/17- Mathematics for Physicists 1.
- Winter Semester 2016/17- Algebra 1.
- Summer Semester 2015/16- Algebra 1.
- Winter Semester 2015/16- Mathematics for Physicists 3.

University of Copenhagen

- Spring Semester 2014/15- Commutative Algebra.
- Spring Semester 2013/14- Modern Algebra.

Technion

- Spring Semester 2009/10- Modern Algebra.
- Winter Semester 2009/10- Modern Algebra.