

CURRICULUM VITAE

Prof. Dr. Karin Baur
Ruhr-Universität Bochum
Fakultät für Mathematik
Universitätsstraße 150
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Married, four children (born 1998, 2001, 2005, 2009)

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Academic positions

3/2024 -	Floor professor (W3), Ruhr-Universität Bochum
10/2018 -	Zone 2 Professor, University of Leeds, 20% since 3/2024.
2022 - 24	Affiliation to UiT, Tromsø, Norway.
2011 - 2023	Full Professor, Chair of Algebra and Number Theory. University of Graz, Austria On leave 10/2019-9/2023
2007 - 2011	SNSF Professor at ETH Zurich (fellowship, Swiss National Science Foundation)
2005 - 2007	Research Associate, Department of Mathematics, U Leicester, UK
2003 - 2005	Postdoctoral Researcher, University of California, San Diego, USA
2002 - 2003	Postdoctoral Assistant, ETH Zurich
6/2023	Offer for professor position in Algebra (W2), University of Cologne, declined

Education

2002	PhD, University of Basel
1997	Masters in Mathematics, Philosophy and French Literature, University of Zurich

Main research interests

Representation theory from combinatorial, geometric, and algebraic points of view. Cluster algebras and cluster categories. Surface categories.

Prizes and Distinctions

Royal Society Wolfson Fellowship, 2018-2023.
SNSF Professorship, 2007-2011: Orbit Structures in Representation Spaces.

CONFERENCES, COLLOQUIA, SEMINARS**Selected invitations to programmes, meetings and long research visits since 2010**

- 2022/23 Representation Theory – Combinatorial Aspects and Application, Centre for Advanced Study, Norwegian Academy of Science and Letters, Oslo, NO.
- 2017 Visiting professor, Leeds, UK
- 2015 Frieze patterns, Mathematisches Forschungsinstitut Oberwolfach (MFO), Germany.
- 2015 Representation Theory, Special Semester at Mittag-Leffler Institute, Sweden.
- 2013 Cluster Algebras and Related Topics, MFO.
- 2012 Program on Cluster Algebras at MSRI, Berkeley, CA, USA.
- 2010 Uppsala (research visit).

Conference invitations and invited conference presentations since 2010

- 2026 - Farey's legacy in frieze patterns and discrete geometry, ICMS Edinburgh, UK.
- Homological methods in non-commutative algebra and number theory, CIMPA School, Thanjavur, Tamil Nadu, India.
- Representations of quivers, MFO, Oberwolfach, Germany.
- 2025 - Quivers in Representation Theory, BIRS/Chennai Mathematical Institute, India (online participation).
- Symposium on quivers, algebras and representations, Trento, Italy (declined).
- Geometric methods in representation theory and beyond, NTNU, Norway.
- Spring School on Dynkin classification, Bochum, Germany
- Representation Theory, Symplectic Geometry, and Cluster Algebras, BIRS, Banff, Canada (online).
- Enveloping Algebras and Geometric Representation Theory, MFO, Germany.
- ARTA, Cologne, Germany.
- 35^{ème} rencontre de la théorie de représentations des algèbres et sujets connexes, Sherbrooke, Quebec, Canada (declined).
- CARE: Collaborations in Algebra, Representation Theory and Ethics, Lyon, France.
- 2024 - Representation theory - combinatorial aspects and applications to TDA, NTNU, Norway
- Autumn School and Conference, Okinawa Institute of Science and Technology, Japan (declined)
- Combinatorial Synergies Annual Conference, Osnabrück, Germany
- CRC 358 opening conference, Paderborn, Germany
- Women in Representation Theory, Bielefeld, Germany
- ARTIG (Algebras and Representation Theory in Germany), RWTH Aachen, Germany
- Auslander conference, Woods Hole, MA, USA (declined)
- Algebraic Transformation Groups, Monte Verita, Switzerland
- 2023 - Théorie des représentations, algèbres amasses et géométrie, CIRM, Luminy, F
- Perceiving Art: Physical Principles and Research Challenges, IHP Paris, F
- Topological Quantum Computation, ICMS Edinburgh, UK
- Symmetry, Stability, and interaction with Computation, CIRM, Luminy, F
- LMS-Bath Mathematical Symposium Categorical and Geometric Representation Theory, Bath, UK
- Combinatorial aspects of representation theory, CAS, Oslo, NO

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- Cluster algebra and Poisson geometry, Trento, Italy
 - CIMPA School Crossroads of representation theory, geometry and higher structures, Argentina
 - 2022 - GeoTop Masterclass: Cluster Algebras and Representation Theory, Copenhagen, DK
 - Augsburg Mathematisches Kolloquium
 - Bases for Cluster Algebras, BIRS-CMO (Casa Matemática Oaxaca), online
 - Lie Størmer Days 2022, University of Tromsø
 - ICRA 2022 Uruguay/Argentina, August
 - Øyvind 60, Trondheim, June
 - Abel Symposium 2021, Ålesund, NO. Deferred to 2022.
 - Journées du GDR TLAG, Grenoble, May
 - Geometric and homological methods in representation theory, Lancaster, UK (online)
 - Flashtalks in representation theory, NTNU, Norway (online)
 - Combinatorial Coworkspace, algebraic and geometric combinatorics, Austria (declined)
 - ARTA 2022 Torun, Poland (declined)
 - 2021 - MEGA 2021, Tromsø, NO.
 - MFO-RIMS Tandem Workshop: Symmetries on Polynomial Ideals and Varieties (declined)
 - Conference in celebration of the work of Bill Crawley-Boevey, Manchester (online).
 - DMV/ÖMG Jahrestagung Passau, Germany.
 - AMS Spring Western Sectional Meeting.
 - Meeting at the confluence of Analysis, Geometry and Mathematics, Villeurbanne, F.
 - LMS Women in Mathematics Day, Plymouth, UK.
 - 2020 - FPSAC, Bar-Ilan University, Ramat-Gan, Israel. Deferred to 2022.
 - Cluster algebras and related topics, Morningside Center of Mathematics, China. Deferred to 2021.
 - McKay correspondence, mutation and related topics, Kavli IPMU, J, online.
 - ARTA 2020, Kingston, Canada
 - Interactions of Symplectic Geometry and Representation Theory. Bochum, D. Deferred to 2021.
 - Conf. in Celebration of the 60th birthday of Bill Crawley-Boevey, Manchester, UK. Deferred to 2021.
 - Braids, Mutations and Twists in Geometry and Representation Theory, Uppsala, S. Deferred to 2021.
 - Dimers in Combinatorics and Cluster Algebras, University of Michigan, USA, online.
 - 2019 - SIAM AG 19, session on cluster algebras and positivity, Berne, Switzerland.
 - Cluster Algebras 2019, RIMS, Kyoto, Japan.
 - Méthodes catégoriques et homotopiques en théorie des représentations, Amiens, France.
 - LMS Northern regional meeting and workshop on Higher Homological Algebra, Newcastle. UK.
 - Interaction between Representation Theory and Homological Mirror Symmetry, Leicester, UK.
 - CIMPA School “Advanced School on Representations of Algebras”, Isfahan, Iran.
 - ISCRA, Conference on Representations of Algebras”, Isfahan, Iran.
 - 2018 - Workshop on Algebraic Combinatorics (B. Sturmfels’ Einstein visiting fellowship), Berlin, Germany.
 - Geometry, Derived Categories and Moduli Spaces, Plymouth, UK.
 - Cluster algebras 20 years on. CIRM, Luminy, France.
 - 2017 - Workshop on Modern Geometry and Physics, Loughborough, UK.

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- Public talks in Mathematics: Challenges and Rewards, Leeds, UK.
 - Matrix Factorizations, ICMS, Edinburgh, UK.
 - APLIMAT 2017, Bratislava, Slovakia.
 - 2016 - Lie Theory and Cluster Algebras, Notre Dame University's global gateway, Rome, Italy.
 - Asian Mathematical Conference, Bali, Indonesia.
 - Workshop Mathematics under Construction, Potsdam, Germany.
 - Women in Noncommutative Algebra and Representation Theory, BIRS, Canada.
 - Nordic Congress of Mathematicians, Stockholm, Sweden.
 - GAMM & DVM joint annual meeting, Braunschweig, Germany.
 - 2015 - Leeds-York-Lie Theory, Leeds, UK.
 - Geometric Algebra, Conference, Toronto, CA
 - Workshop on Cluster Algebras and Finite Dimensional Algebras, Leicester, UK.
 - Introductory Representation Theory Workshop, Uppsala, Sweden.
 - Spring School in Cluster Algebras, lecture series, Münster, Germany.
 - 2014 - Cluster Algebras in Combinatorics and Topology, CMC, KIAS, Korea.
 - LMS Workshop on Cluster Algebras and Projective Algebras, Cardiff, UK.
 - Integrability and Cluster Algebras: Geometry and Combinatorics. ICERM, Brown University, USA.
 - Conference in honour of Hanspeter Kraft, Universität Basel, Switzerland.
 - Auslander conference, Woods Hole, MA, USA.
 - 2013 - Cluster Algebras and Related Topics, Oberwolfach (MFO), Germany.
 - Mirror Symmetry and Cluster Algebras, Leeds, UK.
 - 16th General Meeting of EWM (European Women in Mathematics), Bonn, Germany.
 - Antalya Algebra Days, Mathematical Village, Sirince, Turkey.
 - Workshop on Triangulations and Mutations, Newcastle, UK.
 - 2012 - Cluster categories and cluster tilting, NTNU Trondheim, Norway.
 - Workshop on Geometry, Representation theory and Clusters, Leicester, UK.
 - MSRI: Connections for Women: Commutative Algebra and Cluster Algebras, Berkeley, CA, USA.
 - 2011 - Lie Theory and its applications. UCSD, San Diego, CA.
 - Representation Theory of Quivers and Finite Dimensional Algebras, MFO, Germany.
 - 2010 - Women in Representation Theory: Self-injective Algebras and Beyond. Universität Bielefeld, D.
 - Journées d'Algèbres à Dijon, Institut de Mathématiques de Bourgogne, France.
 - Representation theory and Quantization, D-MATH, ETHZ.

Selected seminar and colloquium talks since 2010

- 2025 Nijmegen Mathematical Colloquium, Netherlands.
- Kolloquium der mathematischen Institute der Universität Münster, Germany.
- MNU Bundeskongress (Verband zur Förderung des MINT-Unterrichts), Bochum, Germany.
- 2024 ABCD Seminar, Cologne, Germany
- 2022 Augsburg Mathematisches Kolloquium
- London Algebra Colloquium

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- Copenhagen-Jerusalem Combinatorics seminar, online.
Algebra Seminar Birmingham, online.
- 2021 Århus algebra seminar, Denmark, online.
Seminar Alexander Zavadskij on Representation of Algebras and Their Applications, online.
Algebraic and combinatorial perspectives in the mathematical sciences, NTNO, Norway, online.
Seminario die Algebra e Geometria, la Sapienza, Roma, Italy, online.
- 2020 OCAS seminar (online cluster algebra seminar), online.
Virtual Colloquium for Women in Combinatorics, online.
LAGOON (Leicester Algebra and Geometry Open Online Seminar), online.
FD Seminar (Online seminar on representation theory of finite-dimensional algebras), online.
Manchester Pure Mathematics Colloquium, Manchester, UK.
- 2019 Manchester Algebra Seminar, Manchester, UK.
Kent Algebra Seminar, Canterbury, UK.
Geometry seminar, D-MATH, ETH Zurich, Switzerland.
- 2018 Frauen in der Mathematik: Interactions between Algebra and Geometry, Konstanz, Germany.
MAXIMALS Algebra Seminar, University of Edinburgh, UK.
Pure Mathematics Colloquium, Lancaster University, UK.
- 2017 Pure Mathematics Seminar, Royal Holloway, London, UK.
Algebra Seminar, University of Oxford, UK.
Pure Mathematics Colloquium, Durham University, UK.
Pure Mathematics Seminar, Newcastle, UK.
ALA Seminar, Leeds, UK.
Colloquium in Mathematics, University of Stuttgart, Germany.
Emmy Noether Seminar, Erlangen-Nürnberg, Germany.
- 2016 Kolloquium über reine Mathematik, Hamburg, Germany.
Leeds Algebra Seminar, Leeds, UK.
Seminar za algebra in funkcionalno analizo, Ljubljana, Slovenia.
Geometry seminar, EPFL, Lausanne, Switzerland.
Algebra seminar, Manchester, UK.
- 2015 Algebra and analysis seminar, Nottingham, UK.
- 2014 Kolloquium, Universität Wien, Austria.
Seminar talk, Università degli studi di Trento, Italy.
- 2013 Kolloquium, FU Berlin, Germany.
Research Seminar, Bogazic University, Istanbul, Turkey.
- 2011 Zahlentheoretisches Kolloquium, TU Graz, Austria.
Seminar Algebra & Topology, ETHZ.
MALGA (Seminari Moduli ALGebre e Anelli), University of Verona, Italy.
Geometric Methods in Representation Theory Seminar, University of North Carolina at Chapel Hill, North Carolina, USA.
Oberseminar Algebra und Geometrie, Universität Münster, Germany.

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- 2010 Algebra Seminar, NTNU, Trondheim, Norway.
Algebra and Geometry Seminar, Uppsala University, Sweden.
Séminaire d'algèbre, Institut Camille Jordan, Université de Lyon I, France.
Dublin Area Mathematics Colloquium, Dublin, Ireland.

Organisation of Conferences, Workshops, Programmes

- 2028 ICRA 23, International Conference on Representations of Algebras (Workshop in Lancaster, Conference in Leeds). With I. Calozza, R. Coelho Simoes, E. Faber, J. Grabowski, D. Pauksztello
- 2025 CIRM, Luminy, France: Workshop Frieze patterns in algebra, combinatorics and geometry, with Eleonore Faber, Michael Cuntz and Pierre-Guy Plamondon
- 2024 Oberwolfach Workshop on Cluster Algebras and its Applications, with Bethany Marsh, Ralf Schiffler and Sibylle Schroll.
- 2023 Research school in representation theory, Cologne, with Sibylle Schroll.
- 2023 29th Nordic Congress of Mathematicians, Session on Representation Theory and Combinatorics, with Sira Gratz, Karin Jacobsen, Peter Jorgensen.
- 2022 Bridges between representation theory and algebraic geometry: Singularities, friezes and cluster categories, Leeds, UK. Co-organisers: E. Faber, M. Pressland.
<https://sites.google.com/view/singular-clusters>.
- 2022 WiNART3, Women in Noncommutative Algebra and Representation Theory, Banff, BIRS, CA (hybrid). Co-organisers: A. Solotar, G. Todorov, C. Walton
- 2022 19th General Meeting of EWM, Helsinki, Finland. Co-organisers: A. Walther, K. Kubjas, O. Kuznetsova, E. Resmerita.
<https://www.europeanwomeninmaths.org/activities/all-our-activities/gm2022/>
- 2021 Main organiser of the special programme CAR - Cluster Algebras and Representation Theory at the Isaac Newton Institute for Mathematical Sciences, Cambridge, UK. Co-organisers: B. Marsh, R. Schiffler, S. Schroll. September – December 2021, including 3 workshops.
- 2020 Conference in Celebration of the 60th birthday of Bill Crawley-Boevey, Manchester, UK. Co-organisers: E. Faber, H. Krause, M. Prest, J. Trlifaj, M. Wemyss, D. Zacharia,
<https://personalpages.manchester.ac.uk/staff/mike.prest/WCB60.html>. 1 day workshop in 2020.
Conference deferred to 2021
- 2019 WiNART2, Women in Noncommutative Algebra and Representation Theory, Leeds, UK. Co-organisers: G. Benkart, E. Faber, H. Kirkman, C. Walton,
<http://women-in-nalg-repthy.org/conferences/winart2-workshop-may-2019/>
- 2018 Cluster algebras: 20 years on, CIRM, Luminy, France (member of scientific committee)
- 2018 18th General Meeting of EWM, Graz, Austria. Co-organisers: C.-B. Schönlieb, K. Hess, E. Resmerita,
<https://sites.google.com/site/ewmgm18/>
- 2017 New Trends in Representation Theory, LMS/CMI research school, Leicester, UK, Co-organiser: S. Schroll, <https://sites.google.com/site/clustertheoryinrepthy/>
- 2017 Geometry and Representation Theory, ESI Vienna, Austria. Co-organisers T. Arakawa, V. Kac, A. Moreau, <https://imsc.uni-graz.at/baur/ESI2017/>
- 2016 Cluster Algebras and Geometry, University of Münster, Germany. Co-organiser: L. Hille,

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- <http://wwwmath.uni-muenster.de/reine/u/lutz.hille/GRUPPE/cluster2016/>
- 2014 Cluster Algebras and Combinatorics, University of Münster, Germany. Co-organiser: L. Hille, <http://wwwmath.uni-muenster.de/reine/u/lutz.hille/GRUPPE/cluster2014/>
- 2012 Representation Theory and Integrable Systems, Special semester at FIM, ETHZ, Switzerland. Co-organisers: D. Calaque, G. Felder, A. Veselov.
- 2012 Cluster Algebras and Combinatorics, University of Graz, Austria. Co-organiser: L. Hille, <http://www.uni-graz.at/~baurk/Cluster-Algebras/>
- 2009 Algebraic Groups and Invariant Theory, at Centro Stefano Franscini, Ascona, Switzerland. Co-organisers: D. Testerman, A. Premet, <http://www.uni-graz.at/~baurk/AGIT>
- 2008 Representation Theory Days in Zurich, FIM, ETHZ, Switzerland. Co-organiser A. Moreau, <http://www.uni-graz.at/~baurk/rep08.html>
- 2007 40th BLOC meeting (“Bristol-Leicester-Oxford-Colloquium”), with A.E. Parker, Leicester, UK.
- 2005 Cherednik Algebras, ICMS, Edinburgh, UK. Co-organisers P. Etingof, V. Ginzburg, I. Gordon, A.E. Parker and C. Stroppel.

Research supervisions

Postdoctoral fellows:

- 2026 – 2028 Dr Alice Dell’Arciprete (Humboldt Fellowship)
- 2025 – 2028 Dr Azzurra Ciliberti
- 2024 – 2027 Dr Tal Gottesman
- 2022 – 2025 Dr. Emine Yildirim, from 8/2025 assistant professor position at the International Center for Mathematical Sciences in Sofia, Bulgaria.
- 2019 – 2021 Dr. Jianrong Li (Lise Meitner fellow, FWF), now senior researcher on a FWF project, Vienna.
- 2017 – 2020 Dr. Ana García Elsener (FWF project). Now at Universidad nacional de Mar del Plata, ARG and conicet researcher (permanent position).
- 2017 – 2021 Dr. Charlie Beil (FWF project), now senior researcher on a FWF project, Graz.
- 2017 – 2019 Dr. Dusko Bogdanic (FWF project), now full professor, Banja Luka, BIH.
- 2014 – 2021 Dr. Tamara Friebe (project *Unkonventionelle Forschung*)
- 2013 – 2016 Dr. Dusko Bogdanic (FWF project)
- 2012 – 2016 Dr. Mark Parsons (FWF project)
- 2011 – 2013 Dr. Dusko Bogdanic (Marie Curie Fellowship)
- 2009 Dr. Lesya Bodnarchuk (EPDI fellow)
- 2008 – 2010 Dr. Soumaïa Ghandour, now assistant professor, Université Libanaise, Lebanon.
- 2007 – 2009 Dr. Anne Moreau, now full professor, Université de Paris Saclay, France.

PhD students:

- 2024 - Amandine Favre
- 2021 - Juan Pablo Maldonado (University of Mar del Plata, Argentina), jointly with A. Garcia Elsener
- 2019 - 2023 Joel Costa (University of Leeds)
- 2015 - 2019 Lukas Andritsch, Jordan McMahon
- 2017/18 Yudi Mahatma (visiting PhD student from ITB Bandung, Indonesia, 3 months visit).

2013 - 2016 Hannah Vogel

2012 - 2016 Manuela Tschabold

2009 - 2013 Lisa Lamberti

2008 - 2014 Jernej Pribosek

30+ undergraduate theses at ETH and at the University of Graz.

Advisory boards, editorial activities, and refereeing

Scientific committees

Royal Society International Exchanges Committee (2023-25), Conseil Scientifique **FSMP** (Fondation des Sciences Mathématiques de Paris), 2022-2026. Member of the scientific committee for **CIRM**, Centre International de Rencontres Mathématiques, France (2019-2024). Representative for the LMS on the Scientific Committee of **BMC**, the British Mathematical Committee (2020-).

Referee panel for the Research Council of Norway, 2018-2021 and for FWO (Flanders, Belgium) 2019-2023, Chair for the FWO panel 2022-2023, EPSRC Fellowship Panel 2022, Fachbeirat des Max-Planck-Instituts für Mathematik in den Naturwissenschaften, Leipzig, 2023-2028, International Evaluation Committee: Mathematics, Israeli Council for Higher Education (CHE), 2024/2025.

Editorial: Editor for the Journal of Algebra, since 5/2023. Editor for the Journal of Algebras and Representation Theory, since 5/2023. Editor for the EMS Newsletter/Magazine, since 2021. Advisory board for the Springer LNM, since 2020. Editorial advisor for the LMS journals, 2019-2021.

Refereeing for journals

Advances in Mathematics, Algebras and Representation Theory, Annales de l'Institut Fourier, Arkiv för matematik, Compositio Mathematica, European Journal of Combinatorics, Forum Mathematicum, International Mathematics Research Notices, Journal of Algebra, Journal of Algebra and its Applications, Journal of Algebra Combinatorics Discrete Structures, Journal of Algebraic Combinatorics, Journal of Experimental Mathematics, Journal of the London Mathematical Society, Journal für die Reine und Angewandte Mathematik (Crelles), Pacific Journal of Mathematics, Mathematics of Computations, SIGMA, Transformation Groups.

International Referee for promotions to professor/associate professor, for faculty candidates (USA, UK, Austria, Germany).

Referee for research proposals (including for the NSA, SNSF, DFG, etc.) and for promotions and prizes (Leibniz-Preis, Germany, tenure procedure, US universities, promotions, US universities)

Reviews for MathSciNet, Zentralblatt.

Phd examiner: Université de Reims (France), Université de Versailles (France), Uppsala (Sweden), EPFL Lausanne, NTNU Trondheim (Norway), University of Hannover (Germany), Université de Poitiers (France), Université de Picardie (France).

Committee member for professor and lecturer positions in Austria, France and Germany, for habilitation theses.

Further activities

Group leader for “dive into research”, a 5 week programme for Bachelor and Masters students, held in Bochum, https://www.combinatorial-synergies.de/activities/2025-08_DiR-Bochum/.

Research mentor for “count me in”, a 6 week programme for research experience in Algebra, at the University of Edinburgh for undergraduate students from the UK, June-July 2023.

Member of the **standing committee** of EWM (2016-2022)

Host for **JESH fellows** (Joint excellence in Science and Humanities) by the OeAW (Austrian Academy of Sciences).

Member of LMS, EWM, SMS, Fellow of the IMA (Institute of mathematics and its applications).

Mentor and assessor for Schweizerische Studienstiftung, 2009-2011.

Elected member of **Maturitätskommission**, Kanton Luzern, 2009-2012.

Organised and participated in **enrichment activities** (e.g. Berkeley Math Circle; junior school level in the UK, Seniorenuniversität Zürich).

Workshop on friezes for **Schweizerische Studienstiftung**, an association for gifted students in Switzerland).

Expert for Maturaprüfungen (exams at the end of high school) for MNG Rämibühl, Zurich, 2021 - .

Administration (since 2007)

Senate of the University of Graz, elected 2013-16 and 2016-19.

Committee for designing a new joint master's program in Mathematics (TU Graz and University of Graz).

Regional teaching centre for Mathematics and Geometry (RFDZ), Styria, Austria, 2012-2019.

Hiring committees/interview panels (ETH, University of Graz, TU Graz, University of Leeds)

Open days for prospective students (ETH), open days in Leeds.

Chair of the Floer Center of Geometry in Bochum (since 2025).

Research grants awarded:

Sum: 5 491 085 € as PI

2025-29	Henriette Herz Scouting Programme of the Humboldt Foundation: covers three Humboldt fellowships to come and work with me	Ca. 70 000 €
2025-27	Host for a Humboldt Fellowship to come to Bochum	Ca. 21 000 €
2022-27	EPSRC Programme Grant "Combinatorial Representation Theory: Discovering the interfaces of Algebra with Geometry and Topology", PI.	2 554 972 £
2019	listen to intuition, Kulturjahr Stadt Graz 2020 (-> 2021)	5 400 €
2019-2022	Faculty member of DK Discrete Mathematics in Graz and Leoben (currently on leave)	2 045 000 €
2018	Royal Society Wolfson Fellowship	234 818 £
2018	OeAD grant for cooperation with Slovenia	4 300 €
2018	JESH fellowship, research visit of Dr. A. Nasr	20 000 €
2017-2020	Dimer algebras on surfaces, FWF project, 2 postdoctoral researchers.	390 000 €
2017	ASEA-Uninet cooperation with Indonesia	3 000 €
2014-2017	Unkonventionelle Forschung, University of Graz, PI with Prof. Dr. K. Fellner.	180 000 €
2015/16	JESH fellowship, research visit of Dr. A. Nasr	10 000 €
2014-2018	Co-PI/faculty member of Doktoratskolleg Discrete Mathematics (TU Graz, KFU Graz, Uni Leoben), FWF	2 000 000 €
2013-2016	Symmetric groups and geometric representation theory, FWF project, one post-doctoral researcher	200 000 €
2012-2015	Surface algebras. FWF project, one post-doctoral researcher, one PhD student	300 000 €
2012-2013	Cluster categories and triangulations, Extension of a prodoc module, SNSF	51 099 CHF

2011-2013	Award of a Marie Curie Intra-European Fellowship with Dr. D. Bogdanic as researcher	170 901 €
2009-2012	Cluster categories and triangulations, Research module prodoc SNSF: Funding a graduate student over 3 years	152 414 CHF
2007-2011	SNSF Professorship: Covered my salary, 3 y of post-doc, a PhD student for 4 years	1 185 468 CHF
2004	Scholarship by the Freie Akademische Stiftung	20 000 CHF
2003-2004	Fellowship for prospective researchers, SNSF: Funds for my post-doctoral work at UCSD, USA.	75 936 CHF
1999-2002	Marie Heim-Vögtlin subsidies: fellowship during PhD	65 848 CHF

Funding obtained for organising conferences:

2021	Compositio foundation (for to Newton Institute programme)	5'000 €
2018	EWM general meeting	25'000 €
2017	LMS/CMI research school	31'000 £
2017	Geometry and Representation Theory, ESI Vienna	32'000 €
2012	Workshop on Cluster Algebras and Combinatorics.	5 000 €
2009	Algebraic Groups and Invariant Theory, Ascona, Switzerland.	80 000 CHF
2005	Workshop Cherednik Algebras, ICSM, Edinburgh, UK.	28 250 £

PUBLICATIONS

All publications are available on arXiv

1. Rigid indecomposable modules in Grassmannian cluster categories (with D. Bogdanic, A. Garcia Elsener, JR Li), accepted modulo revisions, Taiwanese Journal of Mathematics.
2. Flip graphs of coloured triangulations of convex polygons (with D. Bergerova, J. Voon, L. Xu), Algebra and Discrete Mathematics, 39, no.01 (2025), 1-35.
3. Real root systems in the root system $T_{2,p,q}$ (with JR. Li, A. Smolensky). Journal of Lie Theory 33 (2023), no. 4, 1113-1138
4. Cluster algebras (with E. Yildirim). In: Encyclopedia of Mathematical Physics, 2nd Edition. 2023.
5. Cluster algebras generated by projective cluster variables (with A. Nasr-Isfahani). Journal of Algebra, 627 (2023), 1-42
6. Orbifold diagrams (with A. Pasquali, D. Velasco). Journal of Algebra, 619 (2023), 383-418
7. Torsion pairs and cosilting in type A (with R. Laking), Journal of Pure and Applied Algebra, 2022, doi.org/10.1016/j.jpaa.2022.107057.
8. Infinite friezes and triangulations of annuli (with I. Canakci, K. Jacobsen, M. Kulkarni, G. Todorov), accepted by the Journal of Algebra and its Applications.
9. Construction of Rank 2 Indecomposable Modules in Grassmannian Cluster Categories (with D. Bogdanic, JR Li), in *The McKay correspondence, Mutation and related topics*, Advanced Studies in Pure Mathematics (2023), Mathematical Society of Japan, DOI: 10.2969/aspm/08810000.
10. Higher extensions for gentle algebras (with S. Schroll), Bulletin des Sciences Mathématiques, vol. 170, doi.org/10.1016/j.bulsci.2021.103010
11. Frieze patterns of integers, Mathematical Intelligencer, DOI 10.1007/s00283-021-10065-x.
12. Friezes satisfying higher $SL(k)$ -determinants (with E. Faber, S. Gratz, K. Serhiyhenko, G. Todorov), Algebra and Number Theory 15 (2021), No. 1, 29-68, https://doi.org/10.2140/ant.2021.15.29.
13. Examples of geodesic Ghor Algebras on Hyperbolic Surfaces (with C. Beil), Contemporary Mathematics, AMS, 2021, https://doi.org/10.1090/conm/769/15414
14. A Geometric Model for the Module Category of a Gentle Algebra (with R. Coelho Simoes), IMRN, doi.10.1093/imrn/rnz150.
15. Growth behaviour of periodic tame friezes (with K. Fellner, M. Parsons, M. Tschabold), Rev. Mat.

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- Iberoam. 35 (2019), no.2, 575-606, doi:10.4171/rmi/1063.
16. Cluster categories from Grassmannians and root combinatorics (with D. Bogdanic, A. Garcia Elsener), Nagoya Mathematical Journal, 240, 322-354. doi:10.1017/nmj.2019.14
 17. A generalised Euler-Poincaré formula for associahedra (with P. Martin), Bull. Lond. Math. Soc. 51 (2019), no. 1, 181-192, doi 10.1112/blms.12221.
 18. A geometric interpretation of categories of type $\tilde{A}$ and of morphisms in the infinite radical, with H. Torkildsen. Algebras and Representation Theory, doi 10.1007/s10468-019-09863-x.
 19. Perfect k -colored matchings and $k+2$ -gonal tilings (with O. Aichholzer, L. Andritsch, B. Vogtenhuber), Graphs and Combinatorics (2018), doi 10.1007/s00373-018-1967-8.
 20. The fibres of the Scott on polygon tilings are the flip equivalence classes (with P. Martin, appendix by M. Glick), Monatshefte für Mathematik, vol. 3, 2018, 385-424, doi.10.1007/s00605-018-1209-4.
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A gluing operation for dimer quivers (with C. Krawchuk): revision invited.

A generalization of cancellative dimer algebras to hyperbolic surfaces (with C. Beil): revision invited.

A correspondence between additive and monoidal categorifications with application to Grassmannian cluster algebras (with C. Fu, JR Li)

A geometric model for the module category of a string algebra (with R. Coelho Simoes)

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TEACHING

Ruhr-Universität Bochum:

Homological algebra, Summer 2025

Student seminar on graph theory, Summer 2025

Quivers, algebras and representations, Winter 2024/25

ETH Zürich guest lecture:

Cluster algebras and cluster categories via surfaces (graduate course at ETH Zurich), Summer 2021

University of Leeds

Leader of the bachelor theses module for all year 3 students in mathematics, 2020-2024

Tutorial for Core Mathematics, year 1, 2021/22

Elementary geometry, tutorial, year 1, 2020/21

Linear algebra with applications, tutorials, year, 12019/20

Rings and Polynomials, lecture course and workshop, year 2, 2019-2023

Universität Graz

Algebraic combinatorics, Vorlesung 2019

Auslander-Reiten Theorie, Vorlesung, 2017

Graphentheorie, Seminar, 2017

Geschichte der Mathematik, Vorlesung, 2016

Discrete and algebraic structures, Vorlesung 2015, 2016, 2018

Quivers, algebras and representation theory, Vorlesung, 2015

“The book of numbers” and “50 Schlüsselideen der Mathematik”, Seminar, 2014

Homologische Algebra und modulare Darstellungstheorie, Vorlesung, 2014

Algebra I, Vorlesung 2013, 2014, 2015

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Projektive Geometrie, Seminar, 2013

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Einführung in die Algebra, Vorlesung 2012, 2014, 2018

Einführung in die Darstellungstheorie von Algebren, Vorlesung, 2012, 2018

Seminar über Graphentheorie, Seminar, 2011

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Linear Algebra II, Vorlesung 2011

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Kohomologie der Gruppen, Vorlesung, 2009

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