

# Eleonore Faber

## Curriculum Vitae

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🌐 <https://imsc.uni-graz.at/faber/index.html>

Pronouns: she/her

### Employment

- 12/2023–  
04/2023– **Professor (Chair of Algebra and Number Theory)**, *Universität Graz*, Graz (Austria).  
**Professor in Pure Mathematics**, *University of Leeds*, Leeds (UK).  
07/2022–  
03/2023 **Associate Professor**, *University of Leeds*, Leeds (UK).  
08/2017–  
06/2022 **University Academic Fellow**, *University of Leeds*, Leeds (UK).  
09/2015–  
06/2017 **Post doctoral assistant professor**, *University of Michigan*, Ann Arbor (USA).  
06/2015–  
08/2015 **Post doctoral fellow**, *Universität Wien*, Vienna (Austria).  
Return Phase of Erwin-Schrödinger-Fellowship of the FWF  
02/2015–  
05/2015 **Post doctoral fellow**, *Institut Mittag-Leffler*, Djursholm (Sweden).  
Program *Representation Theory*  
09/2012–  
01/2015 **Post doctoral fellow**, *University of Toronto*, Toronto (Canada).  
Erwin-Schrödinger-Fellowship of the FWF  
01/2013–  
05/2013 **Post doc/research member**, *MSRI*, Berkeley (USA).  
Program *Commutative Algebra*  
12/2007–  
08/2012 **Ph.D.-research assistant/Post doc**, *Universität Wien*, Vienna (Austria).  
06/2012–08/2012: Post doc in FWF-project P21461, 12/2011–05/2012: L'Oréal Fellowship, 01/2011–  
11/2011: Ph.D.-research assistant FWF-project P21461, 01/2010–12/2010: doc-fForte fellowship, 12/2007–  
12/2009: Ph.D.-research assistant in FWF-projects P21461, P18992

### Education

- 2012 **Ph.D. in Mathematics**, *Universität Wien*, Fakultät für Mathematik, Vienna (Austria).  
Ph.D. thesis *Normal crossings in local analytic geometry*, Advisor: V.-Prof. H. Hauser; Promotio sub auspiciis  
Praesidentis rei publicae 03/12/2012, Defensio 10/31/2011  
2007–2008 **Ph.D. student in Mathematics**, *Universität Innsbruck*, Institut für Mathematik, Innsbruck (Aus-  
tria).  
2007 **M.S. (Dipl.-Ing.) in Technical Mathematics**, *Universität Innsbruck*, Institut für Mathematik,  
Innsbruck (Austria).  
Master thesis *Torische Varietäten, Explosionen und das Newtonpolyeder*, Advisor: Ao.-Univ. Prof. H. Hauser  
1999–2003 **High School**, education at the Wirtschaftskundl. Realgymnasium der Ursulinen, Innsbruck (Austria).  
school leaving examination (Matura) passed with distinction

### Research Interests

Commutative Algebra, (Non-Commutative) Algebraic Geometry, Representation Theory, Singularity  
Theory, Homological Algebra, Cluster Algebras, Cluster Categories

## Publications

- [1] E. Faber, C. Ingalls, S. Okawa, and M. Satriano. On stacky surfaces and non-commutative surfaces. 2022. <https://arxiv.org/abs/2206.13359> to appear in **Trans. Amer. Math. Soc.**
- [2] E. Faber, C. Ingalls, S. May, and M. Talarico. Matrix factorization of the discriminant of  $S_n$ . **J. Symbolic Comput.** 125:Paper No. 102310, 2024 <https://arxiv.org/abs/2209.03375>
- [3] J. August, M.-W. Cheung, E. Faber, S. Gratz and S. Schroll. Categories for Grassmannian Cluster Algebras of Infinite Rank. **Int. Math. Res. Not. IMRN**, (2):1166–1210, 2024. <https://arxiv.org/abs/2007.14224>
- [4] J. August, M.-W. Cheung, E. Faber, S. Gratz and S. Schroll. Cluster structures for the  $A_\infty$  singularity. **J. London Math. Soc. Second Series** 107(6):2121–2149, 2023. <https://arxiv.org/abs/2205.15344>.
- [5] A. Benito, E. Faber, H. Mourtada, and B. Schöber. Classification of singularities of cluster algebras of finite type: the case of trivial coefficients. **Glasgow Math. J.** 65(1): 170–204, 2023. <https://arxiv.org/abs/2106.10290>
- [6] R.-O. Buchweitz, E. Faber, C. Ingalls, and M. Lewis. McKay quivers and Lusztig algebras for some finite groups. 2021. **Algebr. Repr. Theory** 26(2): 433–469, 2023. <https://arxiv.org/abs/2009.06674>
- [7] R.-O. Buchweitz, E. Faber and C. Ingalls. The magic square of reflections and rotations. **Rocky Mountain J. Math.** 53(6):1721–1747, 2023. <http://arxiv.org/abs/1806.04600>.
- [8] E. Faber, M. Juhnke-Kubitzke, H. Lindo, C. Miller, R. R.G., and A. Seceleanu. Canonical resolutions over Koszul algebras. in *Women in commutative algebra*, 280–301, Assoc. Women Math. Ser., 29, Springer, Cham, 2021. <https://arxiv.org/abs/2011.12409>
- [9] K. Baur, E. Faber, S. Gratz, K. Serhiyenko, and G. Todorov. Friezes satisfying higher  $SL_k$ -determinants. **Algebra and Number Theory** 15(1): 29–68, 2021. <https://arxiv.org/abs/1810.10562>
- [10] R.-O. Buchweitz, E. Faber, and C. Ingalls. A McKay correspondence for reflection groups, **Duke Math. J.** 169: 599–669, 2020. <https://arxiv.org/abs/1709.04218>,
- [11] E. Faber. Trace ideals, normalization chains, and endomorphism rings. **Pure and Applied Math. Quart.** 16(4): 1001–1025, 2020. <https://arxiv.org/abs/1901.04766>
- [12] E. Faber, G. Müller, and K.E. Smith. Non-commutative resolutions of toric varieties. **Advances in Mathematics**, 351: 236–274, 2019. <http://arxiv.org/abs/1805.00492>.
- [13] K. Baur, E. Faber, S. Gratz, K. Serhiyenko, and G. Todorov. Conway–Coxeter friezes and mutation: a survey. in *Advances from the Mathematical Sciences - Research from the 2017 Association for Women Mathematics Symposium* Springer 2018. 18pp <https://arxiv.org/abs/1806.06441>
- [14] R.-O. Buchweitz, E. Faber, and C. Ingalls. Noncommutative resolutions of discriminants. In *Proceedings from ICRA 2016*, volume 705 of *Contemp. Math.*, pages 37–52. Amer. Math. Soc., Providence, RI, 2018. <http://arxiv.org/abs/1702.00791>
- [15] K. Baur, E. Faber, S. Gratz, K. Serhiyenko, and G. Todorov. Mutation of friezes. **Bull. Sci. math.**, 142:1–48, 2018. <http://arxiv.org/abs/1612.05374>.
- [16] B. Doherty, E. Faber, and C. Ingalls. Computing global dimension of endomorphism rings via ladders. **J. Algebra**, 458:307–350, 2016. <http://arxiv.org/abs/1508.06287>.
- [17] P. Aluffi and E. Faber. Chern classes of splayed intersections. **Canadian J. Math.**, 67(6):1201–12018, 2015. <http://arxiv.org/abs/1406.1182>.
- [18] H. Dao, E. Faber, and C. Ingalls. Noncommutative (crepant) desingularizations and the global spectrum of commutative rings. **Algebr. Represent. Theory**, 18(3): 633–664, 2015. <http://arxiv.org/abs/1401.3000>.
- [19] E. Faber. Characterizing normal crossing hypersurfaces. **Math. Ann.**, 361:995–1020, 2015.
- [20] P. Aluffi and E. Faber. Splayed divisors and their Chern classes. **J. Lond. Math. Soc. (2)**, 88(2):563–579, 2013.
- [21] A. Benito, E. Faber, and K. E. Smith. Measuring singularities with Frobenius: the basics. In *Commutative algebra*, pages 57–97. Springer, New York, 2013.
- [22] E. Faber. Towards transversality of singular varieties: splayed divisors. **Publ. Res. Inst. Math. Sci.**, 49(3):393–412, 2013.

- [23] E. Faber and D. Westra. Blowups in tame monomial ideals. **J. of Pure and Applied Algebra**, 215:1805–1821, 2011.
- [24] E. Faber and H. Hauser. Today’s menu: geometry and resolution of singular algebraic surfaces. **Bull. Amer. Math. Soc.**, 47(3):373–417, 2010.

### Preprints

- [25] A. Benito, E. Faber, H. Mourtada, and B. Schober. Classification of singularities of cluster algebras of finite type II: coefficients. 2024. <https://arxiv.org/abs/2401.06758> 47pp, submitted.
- [26] E. Faber, B.R. Marsh, and M. Pressland. Reduction of Frobenius extriangulated categories. 2023. <https://arxiv.org/abs/2308.16232> 39pp, submitted.
- [27] A. Bhaduri, Y. Davidov, E. Faber, K. Honigs, P. McDonald, C. E. Overton-Walker, D. Spence. An explicit derived McKay correspondence for complex reflection groups of rank 2. 2024. 29pp, in preparation.
- [28] E. Faber and B. Schober. Frieze patterns and combinatorics of curve singularities. 2024. 44pp, in preparation.
- [29] A. Bapat, V. Bazier-Matte, E. Faber, B.R. Marsh, K. Kambaso, and Y. Valdivieso. Additive friezes. 2024. in preparation.
- [30] Ö. Esentepe and E. Faber. Friezes from infinite Grassmannian cluster categories. 2024. in preparation.

### Theses

- [31] E. Faber. Normal crossings in local analytic geometry. PhD thesis, Universität Wien, 2011. <http://othes.univie.ac.at/16942/>.
- [32] E. Faber. Torische Varietäten, Explosionen und das Newtonpolyeder. Master’s thesis, Universität Innsbruck, 2007. [http://www1.maths.leeds.ac.uk/~pmtmf/files/diplomarbeit\\_faber.pdf](http://www1.maths.leeds.ac.uk/~pmtmf/files/diplomarbeit_faber.pdf).

### Non-refereed publications

- [33] E. Faber. From reduction of Frobenius extriangulated categories to reduction of friezes. extended abstract 2 pp., to appear in: *Cluster algebras and their applications*. Abstracts from the workshop held January 14–19, 2024. Organized by Karin Baur, Bethany Marsh, Ralf Schiffler, and Sibylle Schroll. *Oberwolfach Rep.*
- [34] E. Faber. From line singularities to Grassmannian categories of infinite rank. extended abstract 3 pp. in *Singularities*. Abstracts from the workshop held September 26–October 2, 2021. Organized by Javier Fernandez de Bobadilla, Francois Loeser, András Némethi, and Duco van Straten. *Oberwolfach Rep.*, **18** (2021), 2573–2639.
- [35] E. Faber. Matrix factorizations for discriminants of complex reflection groups. extended abstract 3 pp. *Logarithmic Vector Fields and Freeness of Divisors and Arrangements: New perspectives and applications*. Abstracts from the workshop held January 24–30, 2021. Organized by Takuro Abe, Alexandru Dimca, Eva-Maria Feichtner, and Gerhard Röhrle. *Oberwolfach Rep.*, **18** (2021), 225–300.
- [36] E. Faber. Non-commutative resolutions of toric varieties. extended abstract 3 pp. in *Toric geometry*. Abstracts from the workshop held September 22–28, 2019. Organized by Jürgen Hausen, Diane Maclagan, and Hal Schenck. *Oberwolfach Rep.*, **16** (2019), 2671–2726.
- [37] E. Faber. Noncommutative resolutions and global dimension of rings of differential operators of toric rings. extended abstract 3 pp. *Singularities and Homological Aspects of Commutative Algebra*. Abstracts from the workshop held February 10–16, 2019. Organized by Aldo Conca, Dale Cutkosky, and Srikanth Iyengar. *Oberwolfach Rep.*, **16** (2019), 407–464.
- [38] E. Faber. Noncommutative desingularizations of discriminants of reflection groups. extended abstract 3 pp., *Singularities*. Abstracts from the workshop held September 25–October 1, 2016. Organized by Francois Loeser, András Némethi, and Duco van Straten. *Oberwolfach Rep.*, **13** (2016), no. 3, 2671–2674.
- [39] R.-O. Buchweitz and E. Faber. Swallowtail on the shore. *Snapshots of modern mathematics from Oberwolfach*, No. 7, 2014. available at <http://imaginary.org/snapshot/swallowtail-on-the-shore>.
- [40] E. Faber. Towards transversality of singular varieties: splayed divisors. extended abstract 3 pp., in: *Singularities*. Abstracts from the workshop held September 23–29, 2012. Organized by András Némethi, Duco van Straten and Victor A. Vassiliev. *Oberwolfach Rep.*, **9** (2012), no. 3, 2828–2831.

### Awards, Honours

- 11/2023 Research professorship for the Commutative Algebra program at MSRI/SLMath, January–May 2024 (23,180USD)

- 11/2012 Würdigungspreis of the Ministry of Science and Research of Austria (BMWF) (2,500EUR)
- 03/2012 Promotio sub auspiciis Praesidentis rei publicae (a distinction given to people who have passed all major exams during high school and university with the best possible mark)
- 2011 "For Women in Science" Award of L'Oréal Austria, the Austrian commission for UNESCO and the Austrian Academy of Sciences (20,000EUR)
- 2002,03 Participation in the final round of the Austrian Mathematical Olympiad (Advanced)
- 2001 1st prize in the final round of the Austrian Mathematical Olympiad (Beginners)

## Grants

- 2022-2027 Co-I on EPSRC Programme grant EP/W007509/1 *Combinatorial Representation Theory* (2,496,440.96GBP)
- 08/2018-07/2020 Recipient of a Marie Skłodowska-Curie Individual Fellowship (Grant Agreement No 789580) of the European Commission (183,454.80EUR)
- 2015 Recipient of an Oberwolfach Leibniz Fellowship (total stay of 3 months at the MFO in summer 2016, 2017)
- 02/2015-05/2015 Recipient of an Institut Mittag-Leffler Post doc fellowship, Program *Representation theory*, Institut Mittag-Leffler, Djursholm
- 01/2013-05/2013 MSRI research membership January 2013–May 2013, programme *Commutative algebra*, Mathematical Science Research Institute, Berkeley (12,000USD)
- 07/2012 Recipient of a scholarship of excellence for sub auspiciis 2012 (Exzellenzstipendium für Promovierte sub auspiciis der Universität Wien 2012) of the rector of the University of Vienna (4,500EUR)
- 09/2012-05/2016 Recipient of Erwin-Schrödinger-Fellowship J3326-N25 of the FWF, (09/2015-05/2016 declined) (140,180EUR)
- 2010 Recipient of a doc-forte Fellowship of the Austrian Academy of Sciences (30,000EUR)
- 2009 Research Fellowship (Forschungsstipendium) F443 of the Universität Wien (8,000EUR)
- 2005,06,07 Scholarship of excellence (Leistungsstipendium) Leopold-Franzens-Universität Innsbruck

## Travel grants

- 09/2016 Recipient of an US Junior Oberwolfach fellowship of the NSF for attending the workshop *Singularities*
- 11/2015 AWM-NSF travel grant for attending the Joint Mathematics Meetings in Seattle, WA, USA, January 6–10, 2016 (1,362USD)
- 04/2014 Travel grant for attending the 2015 Summer Research Institute in Algebraic Geometry in Salt Lake City from the AMS and CMI (569USD) – declined
- 2013 AWM Travel grant for attending the AWM Symposium at Santa Clara University, CA, USA, March 2013
- 2012,2013 Recipient of an Oberwolfach Leibniz graduate travel fellowship for attending the workshops *Singularities* and *Matrix factorizations in Algebra, Geometry, and Physics*
- 2007 Grant for travel expenses (Förderungsstipendium) of the Leopold-Franzens-Universität Innsbruck

## Conference organization grants

- 10/2019 PI for a London Mathematical Society Conference Grant for the Conference *Bridges between representation theory and algebraic geometry: singularities, friezes and cluster categories*, University of Leeds (UK), (together with K. Baur and M. Pressland) - 5,500GBP
- 06/2018 PI for a London Mathematical Society Workshop Grant for the Workshop *WINART2*, University of Leeds (UK), (together with K. Baur, G. Benkart, E. Kirkman and C. Walton) - 7,000GBP

- 04/2018 Financial support for the organization of the Workshop *RRAGE: Ragnar's Ramifications in Algebra and Geometry Emerging*, Fields Institute Toronto (Canada),(together with M. Gualtieri and C. Ingalls) – support from the Fields Institute 20,000CAD and from the National Science Foundation NSF 15,000CAD
- 07/2015 Financial support for the organization of the Workshop *Geometric Algebra: bridges between commutative algebra, noncommutative geometry and representation theory*, Fields Institute Toronto (Canada),(together with J. Bell, R.-O. Buchweitz and C. Ingalls) – support from the Fields Institute 18,000CAD and from the NSF 9,000CAD

## Teaching

- August 2021 **Fellow of the Higher Education Academy (FHEA).**  
teaching accreditation awarded by Advance HE
- WS 2024-25 **Course Instructor**, *Universität Graz*, MAT512.UB Noncommutative algebra.  
responsible for lecture and exams, and exercise session (MAT513.UB)
- 2020–2023 **Supervisor**, *University of Leeds*, MATH3001 (Project in Mathematics).  
supervision of bachelor theses, 9 so far.
- 2020–2023 **Tutor**, *University of Leeds*, various modules.  
leading tutorials and marking for MATH1221 (Semester I 2020,2022), MATH1026 (Semester II 2021)
- Semester I  
2023-24 **Course Instructor**, *University of Leeds*, MATH3071/5071M (Groups and Symmetry/Groups and Symmetry and Galois theory).  
responsible for lecture, assignments and exams
- Semester II  
2021-22 **Course Instructor**, *University of Leeds*, MATH3225 (Topology).  
co-module leader
- Semester I  
2021-22 **Course Instructor**, *University of Leeds*, MATH1331 (Linear Algebra and Applications).  
responsible for lecture, assignments and exams
- Semester II  
2020-21 **Course Instructor**, MAGIC074 (Algebraic geometry), online graduate course for the MAGIC network  
consisting of 21 Universities across the UK.  
2021-22 solely responsible for lecture, assignments and exams  
2022-23
- Semester I  
2020-21 **Course Instructor**, *University of Leeds*, MATH5071 (Galois theory).  
responsible for lecture, assignments and exams
- Semester II  
2018-19 **Course Instructor**, *University of Leeds*, MATH3195/MATH5195M (Commutative rings and algebraic geometry/Advanced commutative rings and algebraic geometry).  
2019-20 solely responsible for lecture, assignments and exams  
2022-23
- Semester II  
2017-18 **Course Instructor**, *University of Leeds*, MATH5253M (Commutative Algebra and Algebraic Geometry).  
solely responsible for lecture, assignments and exams
- Winter 2017 **Course Instructor**, *University of Michigan*, Math 412 (Introduction to Modern Algebra).  
1 section, solely responsible for lecture, assignments and exams
- Fall 2016 **Course Instructor**, *University of Michigan*, Math 116 (Calculus II).  
taught 2 sections, also responsible for grading of weekly homeworks and quizzes, exam grading
- Winter 2016 **Course Instructor**, *University of Michigan*, Math 433 (Introduction to Differential Geometry).  
solely responsible for lecture, assignments and exams
- Fall 2015 **Course Instructor**, *University of Michigan*, Math 115 (Calculus I).  
taught 2 sections, also responsible for grading of weekly homeworks and quizzes, exam grading
- Winter 2014 **Course Instructor**, *University of Toronto at Scarborough*, MATA36H3 (Calculus II for the Physical Sciences).  
solely responsible for lecture, course coordination, assignments and exams, 206 students enrolled

- Fall 2013 **Teaching Assistant**, *University of Toronto*, MAT1352 (Graduate course Characteristic Classes and K-Theory).  
grading
- Fall 2012 **Teaching Assistant**, *University of Toronto*, MAT1350 (Graduate course Homological Algebra).  
grading
- WS 2011 **Instructor**, *Universität Wien, Fakultät für Mathematik*, Übungen zur Algebra.  
algebra exercises for bachelor students in mathematics
- WS 2006 **Tutor**, *Universität Innsbruck, Institut für Mathematik*, Algorithmische Mathematik 4.  
mathematics for bachelor students in computer science
- WS 2005/  
SS 2006 **Demonstrator**, *Universität Innsbruck, Institut für Mathematik*, Programmieren für Mathematiker & Einführung in die mathematische Software.  
programming courses for bachelor students in mathematics

## Research Supervision

### Students

- PhD Advisor for Dylan Crook (PhD student, University of Leeds), 2023–27.
- PhD Advisor for Dr Simon May (PhD student, University of Leeds), 2018–22 (Passed viva on 04/10/2022). PhD thesis: *Connections between discriminants of complex reflection groups and their representation theory*. First job: data management at Blue Light Card
- Co-advisor for Dr Dixy Msapato (PhD student, University of Leeds), 2018–22 (Passed viva on 13/09/22). PhD thesis: *Aspects of representation theory:  $\tau$ -exceptional sequences, modular Fuss-Catalan numbers and idempotent completion of extriangulated categories*
- Co-advisor for Anja Sneiderger (PhD student, University of Leeds), 2022–26.

### Postdocs

- Dr Nebojsa Pavic (Assistant, University of Graz), 2023–
- Dr Özgür Esentepe (Post Doctoral Research Associate, University of Leeds), 2022–

### Other mentoring

- Mentor for the group on *Noncommutative resolutions* at the *AMS Mathematical Research Communities on Derived categories in arithmetic and geometry*, Beaver Hollow (NY, USA), June 2023 (this is an NSF funded program from the American Mathematical Society (AMS) to engage early career mathematicians with current research)
- Group leader (together with B. Marsh) for a group on *Additive friezes* for the *WINART3-Women in Noncommutative Algebra and Representation Theory* workshop, Banff International Research Station (Canada), April 2022

## Organizational activities

### Seminar series etc.

- (ongoing) Local Leeds organizer of the GLEN Algebraic Geometry network (the main organizer is J. Martens), 2022–
- (ongoing) Organizer of the Graz Algebra and Geometry Seminar (together with M. Kalck), 2024–
- Organizer of the FD Seminar: Online Seminar on the Representation Theory of Finite Dimensional Algebras (together with G. Jasso, R. Kinser, J. Külshammer, R. Laking, A. Zvonareva), 2020–2024
- Organizer of the Leeds Algebra Seminar at University of Leeds, 2017–2023
- Organizer of the GAGA-seminar at the University of Vienna, 2009–2012 (together with H. Hauser)



## Conferences, workshops, etc.

- (upcoming) Organizer of the Conference *Frieze patterns in algebra, combinatorics, and geometry*, CIRM, Luminy (France), May 2025 (together with K. Baur, M. Cuntz, P.-G. Plamondon)
- (upcoming) Organizer of the Conference *Representation Theory, Symplectic Geometry, and Cluster Algebras*, Banff International Research Station (BIRS), Banff (Canada), March-April 2025 (together with R. Kinser, R. Schiffler, and M. Sherman-Bennett)
- Member of the Scientific committee of the meeting *GDR Singularités*, CIRM, Luminy (France), September 2023 (together with E. Bierstone, C. Favre, U. Ludwig, J. Nicaise)
- Organizer of the Workshop *Combinatorial representation theory in Leeds*, University of Leeds (UK), July 2023 (together with O. Esentepe, F. Fedele, A. Parker)
- Organizer of the Workshop *Resolutions in local algebra and singularity theory*, Mathematisches Forschungszentrum Oberwolfach (Germany), February 2023 (together with A. Conca, S. D. Cutkosky, S. Iyengar)
- Organizer of the Conference *Representation theory and triangulated categories*, Paderborn (Germany), September 2022 (together with D. Benson, B. Crawley-Boevey, L. Hille, S. Iyengar, J. Letz, M. Stephan)
- Organizer of the Workshop *Bridges between Algebraic Geometry and Representation Theory: Singularities, Friezes, and Cluster Categories*, University of Leeds (UK), May 2022 (together with K. Baur and M. Pressland)
- Organizer of the Conference *Representation of Quivers: Theory and Applications - A celebration of the 60th Birthday of William Crawley-Boevey*, University of Manchester (UK), September 2021 (together with K. Baur, H. Krause, M. Prest, J. Trlifaj, M. Wemyss, D. Zacharia)
- Organizer of the Conference *Singularities in positive Characteristic: the Frobenius morphism, resolutions, and differential methods*, CIRM, Luminy (France), July 2021 (together with A. Benito, B. Schober, B. Teissier)
- Organizer of the Workshop *RRAGE - Ragnar's Ramifications in Algebra and Geometry Emerging*, Fields Institute Toronto (Canada), July 2019 (together with M. Gualtieri and C. Ingalls)
- Organizer of the Workshop *WINART2-Women In Noncommutative Algebra And Representation Theory*, University of Leeds (UK), May 2019 (together with K. Baur, G. Benkart, E. Kirkman, and C. Walton)
- Organizer of the Conference *Interactions between Commutative Algebra, Representation Theory, and Algebraic Geometry: A conference in memoriam Ragnar-Olaf Buchweitz*, Universität Münster (Germany), March 2019 (together with L. Hille and J. Schürmann)
- Organizer of the Special Session *Algebraic Geometry and Commutative algebra* at CSASC 2018, Bratislava (Slovakia), September 2018 (together with A. Fernando-Boix)
- Host of Oberwolfach Simons Visiting Professor Colin Ingalls at University of Leeds, May 2018
- Organizer of the Workshop *Geometric Algebra: bridges between commutative algebra, noncommutative geometry and representation theory*, Fields Institute Toronto (Canada), July 2015 (together with J. Bell, R.-O. Buchweitz and C. Ingalls)
- Organizer of the ESI-program *Algebraic vs. Analytic Geometry*, Erwin-Schrödinger-Institute Vienna (Austria), November 19 – December 13, 2011 (together with C. Bruschek, N. Lubbes and G. Rond) – support from the ESI 20,000EUR and from the Clay Mathematics Institute 10,000USD
- Organizer of *ETH-Day*, ESI, Vienna (Austria), March 4, 2011, (together with C. Bruschek and H. Hauser)
- Organizer of *The Vienna PDE-Day*, Erwin-Schrödinger-Institute, Vienna (Austria), January 29, 2010, (together with H. Hauser)
- Assistance at the exhibition *IMAGINARY*, Vienna (Austria) and Berkeley (USA), February-March 2009
- Organizer of *The Vienna Algebra Day*, Erwin-Schrödinger-Institute, Vienna (Austria), October 31, 2008, (together with H. Hauser)

- Assistance at the organization of *The Vienna Geometry Day*, Erwin-Schrödinger-Institute, Vienna (Austria), April 25, 2008
- Organizer of the conference *The 1st  $\alpha - \omega$ -conference in Algebraic Geometry*, Obergurgl (Austria), October 2007, (together with C. Bruschek, H. Hauser, M. Scheicher and D. Wagner)

## Service

- Member of the Engineering and Physical Sciences Research Council (EPSRC) Early Career Forum of the Mathematical Sciences 2017–20.
- Member of the EPSRC strategy group (University of Leeds), 2020.

## Editorial board

- Journal of Pure and Applied Algebra (JPAA): March 2024–

## Reviewing

- Peer-reviewing for *Advances in Mathematics*, *Advances in Applied Mathematics*, *Algebra and Number Theory*, *Algebras and Representation theory*, *Annales de l'Institut Fourier*, *Bulletin of the LMS*, *Canadian Journal of Mathematics*, *Clay Mathematics Proceedings*, *Collectanea Mathematica*, *Compositio Mathematica*, *International Mathematics Research Notices (IMRN)*, *Journal of Algebra*, *Journal of Algebra and its Applications*, *Journal of Pure and Applied Algebra*, *Journal of Singularities*, *Journal of Symbolic Computation*, *Manuscripta Mathematica*, *Math. Zeitschrift*, *Michigan Mathematical Journal*, *Transactions of the AMS*.
- Reviewing for *Mathematical Reviews* (since November 2013, 26 articles).
- Served on a National Science Foundation (NSF) review panel 2017.
- Engineering and Physical Sciences Research Council (EPSRC) Peer Review College 2020–current (Associate Peer Review College 2019–2020)
- Served on EPSRC review panels 2020 (New Horizons panel), 2022, 2024 (Fellowship interview panel), 2023 (Small Grants panel).
- Served on a Swedish Research council (Vetenskapsrådet VR) review panel 2024.
- Expert for the European Commission working for the Research Executive Agency (REA): evaluation of H2020-MSCA proposals, HORIZON-EUROPE-MSCA proposals.
- Reviewing grant proposals for Dutch Research Council (NWO), Alexander von Humboldt-Stiftung.
- Judge for Association for Women in Mathematics/Math for America (AWM/MfA) student essay contest, 2022, 2023, 2024.
- External Examiner for PhD thesis of Kellan Steele (University of Glasgow), 2020.
- External Examiner (2nd opponent) for PhD thesis of Mads Hustad Sandøy (Norwegian University of Science and Technology Trondheim (NTNU), Norway), 2021.

## Departmental service

- Internal Examiner for PhD thesis of Nouf Alraddadi (University of Leeds), 2022.
- Internal Examiner for PhD thesis of Amani Alfadhli (University of Leeds), 2018.
- Member of the head of school search committee (University of Leeds), 2018.
- Member of the interview panels for appointments: Lecturer in Statistics (2 positions) (University of Leeds), 2022; Research Fellow (Post doc) (University of Leeds), 2022; Daphne-Jackson fellowship (University of Leeds), 2019.
- Member of shortlisting committee for appointment of a Lecturer in Pure Mathematics (University of Leeds), 2023.



## Memberships

- American Mathematical Society (AMS) since 2006
- Association for Women in Mathematics (AWM) since 2013
- Austrian Mathematical Society (ÖMG) since 2012
- London Mathematical Society (LMS) since 2018

## Selected Invited Research Talks

(Five most important marked with \*)

1. (upcoming) Colloquium in honour of Lutz Hille, Universität Bielefeld, Bielefeld (Germany), November 2024; Talk: *Semi-orthogonal decompositions of the equivariant category of coherent sheaves for some complex reflection groups of rank 2 via the McKay correspondence*
2. Workshop *RIMS-MFO Tandem workshop: Algebraic Geometry and Noncommutative Projective Varieties*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), September 2024; Talk: *An explicit derived McKay correspondence for some reflection groups*
3. Workshop *Wirep: Women in Representation theory: quivers, mutations, and beyond*, Universität Bielefeld, Bielefeld (Germany), September 2024; Talk: *Combinatorics of Conway-Coxeter friezes and resolutions of plane curve singularities*
4. 21st International Conference on Representations of Algebras (ICRA 2024), Shanghai Jiao Tong University, Shanghai (China), August 2024; Talk: *Frieze patterns in representation theory*– PLENARY TALK
5. Joint meeting AMS-UMI, Session *Recent developments in commutative algebra*, Palermo (Italy), July 2024; Talk: *Resolutions of plane curve singularities and Conway–Coxeter friezes*
6. CLAN (Cluster algebras and their applications in the North) meeting, University of Central Lancashire, Preston (UK), June 2024; Talk: *Friezes and combinatorics of resolutions of curve singularities*
7. Advanced topics Seminar, TU Graz, Graz (Austria), June 2024; Talk: *Frieze patterns: from combinatorics to representation theory*
8. 2024 AMS Spring Western Sectional Meeting Session *Commutative and noncommutative algebra, together at last*, San Francisco State University, CA, (USA), May 2024; Talk: *Reduction of Frobenius extriangulated categories and friezes*
9. Algebra, Geometry, and Combinatorics Seminar, San Francisco State University, CA, (USA), March 2024; Talk: *Frieze patterns: from combinatorics to representation theory*
10. Fairfax algebra days (FAD), George Mason University, VA, (USA), March 2024; Talk: *Singularities arising from cluster algebras of finite cluster type*
11. Geometry and Related Topics Seminar, online, hosted by University of Liverpool, Liverpool (UK), February 2024; Talk: *Friezes and resolutions of curve singularities*
12. SFU Number Theory and Algebraic Geometry Seminar, Simon Fraser University, Burnaby (Canada), February 2024; Talk: *Friezes and resolutions of plane curve singularities*
13. \*Workshop *Cluster algebras and their applications*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), January 2024; Talk: *From reduction of Frobenius extriangulated categories to reduction of friezes*
14. Workshop *ARTIG3: Representation theory and noncommutative geometry*, Universität Paderborn, Paderborn (Germany), December 2023; Talk: *Reduction of Frobenius extriangulated categories and friezes*
15. Pure Mathematics Colloquium, University of Leeds, Leeds (UK), November 2023; Talk: *Frieze patterns: from combinatorics to representation theory*
16. 2023 OEMG Tagung (Meeting of the Austrian Mathematical Society) *Mini Symposium: Algebra, Geometry and Physics*, Graz (Austria), September 2023; Talk: *Reduction of friezes and Frobenius extriangulated categories*

17. Conference *14th Ukraine Algebra conference*, online, hosted by Sumy State Pedagogical University (Ukraine), July 2023; Talk: *Conway–Coxeter friezes and resolutions of curve singularities*
18. Algebraic geometry seminar, Freie Universität Berlin, Berlin (Germany), June 2023; Talk: *Nichtkommutative Auflösungen torischer Varietäten und Ringe von Differentialoperatoren*
19. Workshop *Various guises of reflection arrangements*, ICMS, Edinburgh (UK), March 2023; Talk: *Maximal Cohen-Macaulay modules for discriminants of pseudo-reflection groups*
20. Workshop *The Singular workshop*, Renyi Institute, Budapest (Hungary), March 2023; Talk: *Conway–Coxeter friezes and the combinatorics of curve singularities*
21. Algebra Seminar, York University, York (UK), January 2023; Talk: *Line singularities and Grassmannian cluster structures*
22. Conference *Written Geometry: Commutative Algebra, Géométrie écrite : algèbre commutative*, CIRM, Luminy (France), January 2023; Talk: *Line singularities and Grassmannian cluster structures*
23. Workshop *Singularities and Mirror Symmetry*, University of Glasgow, Glasgow (Scotland), December 2022; Talk: *Line singularities and Grassmannian cluster structures*
24. COW seminar (Cambridge–Oxford–Warwick algebraic geometry seminar), Loughborough University, Loughborough (UK), December 2022, Talk: *Discriminants of pseudo-reflection groups and noncommutative resolutions*
25. Algebra Seminar, University of Birmingham, Birmingham (UK), November 2022; Talk: *Grassmannian cluster structures and line singularities*
26. Pure Mathematics Colloquium, University of Sheffield, Sheffield (UK), November 2022; Talk: *From the magic square of reflections and rotations to the McKay correspondence*
27. Conference *Commutative Algebra, D-Modules and Singularities intertwined (Luis, Orlando, Paco & Santi 265 Fest)*, La Cristalera. Miraflores de la Sierra (Spain), June 2022; Talk: *Discriminants of reflection groups and noncommutative resolutions*
28. \*Abel Symposium 2022 *Triangulated categories in representation theory and beyond*, Ålesund (Norway), June 2022; Talk: *Cluster structures of the  $A_\infty$ -singularity*
29. Virtual Commutative Algebra Seminar, online, hosted by IIT Bombay (India), April 2022; Talk: *Cluster structures of the type  $A_\infty$ -singularity*
30. Aarhus Homological Algebra Seminar, online, hosted by Universitet Aarhus, Aarhus (Denmark), March 2022; Talk: *Singularities arising from cluster algebras*
31. ARTIN (Algebras and Representation Theory In the North), University of Manchester, Manchester (UK), March 2022; Talk: *Matrix factorizations for discriminants*
32. LAGOON (Longitudinal Algebra and Geometry Open ONline) Seminar, hosted by ICMS, Edinburgh (Scotland), March 2022 (online); Talk: *Some matrix factorizations for discriminants*
33. Nottingham algebraic geometry seminar, online, hosted by University of Nottingham, Nottingham (UK), December 2021; Talk: *Matrix factorizations for discriminants of pseudo-reflection groups*
34. Séminaire marseillais de théorie des singularités, online, hosted by Université Aix Marseille, Marseille (France), October 2021; Talk: *Singularities arising in cluster algebras of finite type*
35. Workshop *Singularities*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), September–October 2021; Talk: *From line singularities to Grassmannian categories of infinite rank*
36. Minnesota Commutative Algebra Seminar, online, hosted by University of Minnesota, Minneapolis (USA), April 2021; Talk: *Singularities of cluster algebras of finite type*
37. 2021 AMS Spring Central Sectional Meeting Session *Interactions between Representation Theory, Poisson Geometry, and Noncommutative Algebra*, online hosted by AMS, originally at University of Cincinnati OH (USA), April 2021; Talk: *Triangulations of the infinity-gon via Grassmannian categories of infinite rank*
38. Algebra Seminar, online, hosted by NTNU Trondheim (Norway), April 2021; Talk: *Grassmannian categories of infinite rank and rings of countable Cohen-Macaulay type*
39. Newcastle Algebra Seminar, online, hosted by University of Newcastle (UK), March 2021; Talk: *Grassmannian categories of infinite rank and rings of countable Cohen-Macaulay type*

40. Oberseminar Algebraische Geometrie, online, hosted by Universität Frankfurt, Frankfurt (Germany), February 2021; Talk: *Grassmannian categories of infinite rank and rings of countable Cohen-Macaulay type*
41. Workshop *Logarithmic Vector fields and freeness of divisors and arrangements*, online, hosted by Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), January 2021 (online); Talk: *Matrix factorizations for discriminants of reflection groups*
42. RepNet Seminar, online representation theory seminar, hosted by ICMS, Edinburgh (Scotland), December 2020; Talk: *McKay quivers and the McKay correspondence for some complex reflection groups*
43. Syracuse Algebra Seminar, online, hosted by Syracuse University, Syracuse NY (USA), November 2020; Talk: *McKay quivers and the McKay correspondence for some complex reflection groups*
44. Paris Algebra Seminar, online, hosted by Université de Paris, Paris (France), November 2020; Talk: *McKay quivers of complex reflection groups and the McKay correspondence*
45. Cardiff Geometry and Physics Seminar, online, hosted by Cardiff University, Cardiff (UK), November 2020; Talk: *Infinite constructions: Grassmannian categories of infinite rank and triangulations of an infinity-gon*
46. Representation Theory and related topics seminar, online, hosted by Northeastern University, Boston, MA (USA), November 2020; Talk: *Grassmannian categories of infinite rank and countable Cohen-Macaulay type*
47. Differential Operators in Commutative Algebra Seminar (DOCAS), online, hosted by University of Michigan, Ann Arbor, MI (USA), September 2020; 2 Talks: *Homological dimension of rings of differential operators and noncommutative resolutions of singularities*
48. *Fellowship of the Ring Seminar* (worldwide commutative algebra seminar), hosted by MSRI, Berkeley, CA (USA), August 2020; Talk: *Grassmannian categories of infinite rank and rings of countable Cohen-Macaulay type*
49. Workshop *McKay correspondence, mutation, and related topics*, online, hosted by Kavli-IPMU (Japan), July–August 2020; Talk: *Complex reflection groups, their McKay quivers, and the McKay correspondence*
50. Chicago online algebraic geometry and commutative algebra seminar, online, hosted by Northwestern, UIC, University of Chicago, IL (USA), July 2020; Talk: *From countable Cohen-Macaulay type to the infinite Grassmannian*
51. Algebra Seminar MAXIMALS, University of Edinburgh, Edinburgh (Scotland), January 2020; Talk: *Infinite constructions: from Grassmannian cluster categories to countable Cohen-Macaulay type*
52. *2019 International Conference on Singularity Theory*, Tsinghua Sanya International Mathematics Forum, Sanya City, Hainan (China), December 2019; Talk: *Countable Cohen-Macaulay type and the infinity-gon*
53. Geometry Seminar, Kings College, London (UK), December 2019; Talk: *Noncommutative resolutions and rings of differential operators of toric varieties*
54. GLEN, University of Sheffield, Sheffield (UK), November 2019; Talk: *Singularities coming from reflection groups and the McKay correspondence*
55. Workshop *EDGE DAYS: Fano varieties, cones and links*, University of Edinburgh, Edinburgh (Scotland), November 2019; Talk: *Noncommutative desingularizations of toric varieties*
56. Algebra Seminar, Carleton University, Ottawa (Canada), October 2019; Talk: *Grassmannian cluster structures – friezes and infinite constructions*
57. \*Workshop *Toric geometry*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), September 2019; Talk: *Non-commutative resolutions of toric varieties*
58. \*Workshop *Tilting Theory, Singularity Categories, and Noncommutative Resolutions*, CMO, Oaxaca (Mexico), September 2019; 2 Talks on *The McKay correspondence and noncommutative resolutions of discriminants of reflection groups*
59. Workshop on *Quiver varieties and representation theory*, CRM, Montréal (Canada), August 2019; Talk:  *$SL_k$ -friezes and Grassmannian cluster categories*
60. Workshop *RRAGE: Ragnar’s Ramifications in Algebra and Geometry Emerging*, Fields Institute, Toronto (Canada), July 2019; Talk: *A McKay correspondence for reflection groups*
61. Oberseminar Algebraische Geometrie, Universität Hannover, Hannover (Germany), June 2019; Talk: *Some matrix factorizations of discriminants of reflection groups*
62. Pure Colloquium, University of Leeds, Leeds (UK), April 2019; Talk: *Noncommutative singularity theory via the McKay correspondence*

63. Algebraic Geometry and Physics Seminar, Loughborough University, Loughborough (UK), February 2019; Talk: *The magic square and a McKay correspondence for reflection groups*
64. Geometry Seminar, University of Bath, Bath (UK), February 2019; Talk: *A McKay correspondence for reflection groups and some noncommutative desingularizations*
65. Workshop *Singularities and Homological Aspects of Commutative Algebra*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), February 2019; Talk: *Noncommutative resolutions and rings of differential operators of toric rings*
66. Leeds Algebra Seminar, University of Leeds, Leeds (UK), January 2019; Talk: *The magic square of reflections and rotations and the McKay correspondence*
67. London Algebra Colloquium, Queen Mary University London, London (UK), January 2019; Talk: *Reflections, rotations, and singularities via the McKay correspondence*
68. Meeting on *Free divisors and hyperplane arrangements*, Paris (France), December 2018; Talk: *Reflection arrangements, their discriminants, and the McKay correspondence*
69. Algebra Seminar, York University, York (UK), November 2018; Talk: *Noncommutative resolutions of toric varieties*
70. LaCIM Seminar, UQAM, Montréal (Canada), October 2018; Talk: *Cluster structures on Grassmannians and  $SL_k$ -friezes*
71. One day meeting in Combinatorial Algebraic Geometry, University of Bristol, Bristol (UK), September 2018; Talk: *Noncommutative resolutions and rings of differential operators of toric varieties*
72. 18th International Conference on Representations of Algebras (ICRA 2018), Prague, Czech Republic, August 2018; Talk: *Noncommutative resolutions of toric varieties*
73. Conference *DART IX - Differential Algebra and Related Topics*, University of Leeds, Leeds (UK), July/August 2018; Talk: *Integrable derivations of hypersurfaces in characteristic  $p$*
74. Algebra and Number Theory Seminar, Universität Graz, Graz (Austria), July 2018; Talk: *From the magic square of reflections and rotations to the McKay correspondence*
75. Algebraic Geometry Seminar, Universität Wien, Vienna (Austria), July 2018; Talk: *Frieze und Clusterkategorien*
76. Algebra and Analysis Seminar, University of Nottingham, Nottingham (UK), May 2018; Talk: *The McKay correspondence and noncommutative singularity theory*
77. Pure Mathematics Colloquium, Lancaster University, Lancaster (UK), April 2018; Talk: *Symmetries and singularities via the McKay correspondence*
78. Algebra Seminar, Carleton University, Ottawa (Canada), April 2018; Talk: *Friezes and mutations*
79. Séminaire de Géométrie Algébrique, Université de Montpellier, Montpellier (France), March 2018; Talk: *Noncommutative desingularizations and the McKay correspondence for reflection groups*
80. Algebraic Geometry Seminar, Universidad Autónoma de Madrid, Madrid (Spain), December 2017; Talk: *Endomorphism rings and rings of differential operators of finite global dimension*
81. Singularity Day, University of Liverpool, Liverpool (UK), November 2017; Talk: *Noncommutative desingularizations of discriminants of reflection groups*
82. Algebra Seminar, University of Manchester, Manchester (UK), November 2017; Talk: *Global dimension of endomorphism rings and rings of differential operators of toric algebras*
83. Algebra Working Seminar, University of Leeds, Leeds (UK), November 2017; Talk: *Friezes: from Conway–Coxeter to Caldero–Chapoton*
84. Algebra Seminar, University of Glasgow, Glasgow (UK), October 2017; Talk: *Conic modules and global dimension of rings of differential operators*
85. Workshop *Noncommutative Algebraic Geometry and Related Topics*, RIMS, Kyoto (Japan), September 2017; Talk: *Endomorphism rings of conic modules over toric algebras*
86. BLOC (Bristol Leicester Oxford City Colloquium), University of Oxford, Oxford (UK), August 2017; Talk: *A McKay correspondence for reflection groups*
87. Workshop *Matrix factorisations and related topics*, ICMS, Edinburgh (UK), July 2017; Talk: *Matrix factorizations of discriminants of reflection groups*

88. 2017 Maurice Auslander International conference, Woods Hole Oceanographic Institute, Woods Hole, MA (USA), May 2017; Talk: *Endomorphism rings of conic modules over toric algebras*
89. Conference *AWM research symposium 2017*, University of California at Los Angeles (UCLA), Los Angeles, CA (USA), April 2017; Talk in the special session *WINART: Representations of algebras: Noncommutative resolutions of toric rings*
90. Conference *AWM research symposium 2017*, University of California at Los Angeles (UCLA), Los Angeles, CA (USA), April 2017; Talk in the special session *Commutative Algebra: Integrable derivations of some hypersurfaces in characteristic  $p > 0$*
91. Commutative Algebra Seminar, University of Michigan, Ann Arbor, MI (USA), March 2017; Talk: *Resolutions of conic modules over toric algebras*
92. Analysis Seminar, University of Western Ontario, London, ON (Canada), March 2017; Talk: *Reflection groups and the McKay correspondence*
93. Kolloquium, Universität Münster, Münster (Germany), January 2017; Talk: *A glimpse into the world of singularities*
94. 2017 Joint Mathematics Meetings, AMS Special Session *New Developments in Noncommutative Algebra and Representation Theory*, Hyatt Regency Atlanta and Marriott Atlanta Marquis, Atlanta, GA (USA), January 2017; Talk: *Mutation of  $A_n$ -friezes*
95. Representation Theory and related topics seminar, Northeastern University, Boston, MA (USA), November 2016; Talk: *Noncommutative resolutions of curves*
96. Algebra and Algebraic Geometry seminar, University of British Columbia, Vancouver, BC (Canada), October 2016; Talk: *Noncommutative resolutions of singularities and the McKay correspondence*
97. Workshop *Singularities*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), September 2016; Talk: *Noncommutative desingularizations of discriminants of reflection groups*
98. Workshop *Bridges between Noncommutative Algebra and Algebraic Geometry*, BIRS, Banff, Alberta (Canada), September 2016; Talk: *McKay's correspondence, Auslander's theorem, and reflection groups*. Video available at: <http://www.birs.ca/events/2016/5-day-workshops/16w5088/videos/watch/201609150900-Faber.html>
99. \* 17th International Conference on Representations of Algebras (ICRA 2016), Syracuse University, Syracuse, NY (USA), August 2016; Talk: *Noncommutative resolutions of discriminants*. Video available at: <https://www.youtube.com/watch?v=C9T4ELKd5EA> – PLENARY TALK
100. Oberseminar Algebra und Geometrie, Universität Münster, Münster (Germany), July 2016; Talk: *Nichtkommutative Auflösungen von Diskriminanten von Spiegelungsgruppen*
101. Universität Wien, Vienna (Austria), May 2016; Talk: *Singularities in Algebraic Geometry and Representation Theory*
102. 2016 Maurice Auslander International conference, Woods Hole Oceanographic Institute, Woods Hole, MA (USA), May 2016; Talk: *A McKay correspondence for reflection groups*
103. 2016 Joint Mathematics Meetings, AWM-AMS Special Session *Commutative Algebra and Its Interactions with Algebraic Geometry*, Washington State Convention Center, Seattle, WA (USA), January 2016; Talk: *A McKay correspondence for reflection groups*
104. HCM Seminar, Hausdorff Center for Mathematics, Bonn (Germany), December 2015; Talk: *Singularities in Algebraic Geometry and Representation Theory*
105. Commutative Algebra Seminar, University of Michigan, Ann Arbor, MI (USA), November 2015; Talk: *A McKay correspondence for reflection groups*
106. Workshop *Preprojective Algebras Interacting with Singularities, Cohen-Macaulay Modules and Weighted projective Spaces*, CMO, Oaxaca (Mexico), October 2015; Talk: *A McKay correspondence for reflection groups*. Video available at: <http://www.birs.ca/events/2015/5-day-workshops/15w5116/videos/watch/201510061803-Faber.html>
107. Capsule research talk, University of Michigan, Ann Arbor, MI (USA), August 2015; Talk: *Free divisors, desingularizations and the McKay correspondence*

108. Conference *Differential and combinatorial aspects of singularities*, Technische Universität Kaiserslautern, Kaiserslautern (Germany), August 2015; Talk: *Desingularizing free divisors, or: a McKay correspondence for reflection groups, part I*
109. Algebraic Geometry Seminar, Universität Wien, Vienna (Austria), June 2015; Talk: *The McKay correspondence and reflection groups*
110. "Tell us about ..." Seminar, Institut Mittag-Leffler, Djursholm (Sweden), March 2015; Talk: *The McKay correspondence*
111. Workshop *Introductory Workshop for the IML Program Representation Theory*, Uppsala Universitet, Uppsala (Sweden), February 2015; Talk: *The global spectrum of a commutative ring*
112. Homological Methods Seminar, University of Toronto, Toronto, ON (Canada), January 2015; Talk: *Resolution of singularities gone noncommutative*
113. Workshop *Homological Interactions between Representation Theory and Singularity Theory*, University of Edinburgh, Edinburgh (UK), December 2014; Talk: *Noncommutative resolutions of not necessarily normal rings*
114. 2014 AMS Fall Western Sectional Meeting Session *Developments from MSRI Programs in Commutative Algebra and Noncommutative Algebraic Geometry and Representation Theory*, San Francisco State University, San Francisco, CA (USA), October 2014; Talk: *Computing the global spectrum of a commutative ring*
115. 16th International Conference on Representations of Algebras (ICRA 2014), Tsinghua Sanya International Mathematics Forum, Sanya City, Hainan (China), August 2014; Talk: *Noncommutative resolutions and the global spectrum of a commutative ring*
116. Oberseminar Algebraische Geometrie und Komplexe Analysis, Ruhr-Universität, Bochum (Germany), July 2014; Talk: *Resolution of singularities and non-commutative rings*
117. Symposium *Singularities and their Topology*, Leibniz Universität Hannover, Hannover (Germany), July 2014; Talk: *Non-commutative resolutions and the global spectrum of commutative rings*
118. Sixth Iberoamerican Congress on Geometry, The Graduate Center, CUNY, New York, NY (USA), May 2014; Talk: *Resolution of singularities and noncommutative rings*
119. 2014 AMS Spring Central Sectional Meeting Session *Developments from PASI 2012: Commutative Algebra and Interactions with Related Disciplines*, Texas Tech University, Lubbock, TX (USA), April 2014; Talk: *The global spectrum and non-commutative resolutions of singularities*
120. Commutative Algebra Seminar, University of Michigan, Ann Arbor MI (USA), April 2014; Talk: *From resolution of singularities to non-commutative rings: the global spectrum*
121. 2013 CMS Winter Meeting Session *Representations of Algebras*, Ottawa Marriott, Ottawa, ON (Canada), December 2013; Talk: *The global spectrum of a commutative ring*
122. 2013 CMS Winter Meeting Session *Connections between Noncommutative Algebra and Geometry*, Ottawa Marriott, Ottawa, ON (Canada), December 2013; Talk: *Non-commutative resolutions of non-normal rings*
123. Algebra Seminar, University of Waterloo, Kitchener ON (Canada), November 2013; Talk: *Free and splayed divisors: singularities and transversality*
124. Algebraic Geometry Seminar, Queen's University, Kingston, ON (Canada), November 2013; Talk: *Non-commutative resolutions of singularities and the global spectrum*
125. Algebra and Statistics Colloquium, University of New Brunswick, Fredericton, NB (Canada), November 2013; Talk: *Non-commutative resolutions of singularities and the global spectrum*
126. Conference *23rd annual Route 81 conference on Algebraic Geometry and Commutative Algebra*, Syracuse University, Syracuse, NY (USA), October 2013; Talk: *Non-commutative desingularization and the global spectrum*
127. Workshop *Noncommutative Algebraic Geometry and Related Topics*, RIMS, Kyoto (Japan), July 2013; Talk: *Non-commutative resolutions and non-normal rings*
128. Research Programme *Geometry of Topological D-branes, Categories and Applications*, Erwin Schrödinger International Institute for Mathematical Physics, Wien (Austria), June 2013; Talk: *Non-commutative desingularizations of non-normal rings*
129. Algebraic Geometry Seminar, University of Michigan, Ann Arbor MI (USA), May 2013; Talk: *Non-commutative resolutions and non-normal rings*



130. Conference *AWM research symposium 2013*, Santa Clara University, Santa Clara, CA (USA), March 2013; Talk: *Algebraic criteria for transversality of singular hypersurfaces*
131. Post doc seminar, MSRI, Berkeley (USA), March 2013; Talk: *Free divisors: examples, conjectures*
132. Workshop *Free divisors and differential equations*, Tokyo University of Agriculture and Technology, Tokyo (Japan), November 2012; Talk: *Free divisors and transversality*
133. Workshop *Singularities*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), September 2012; Talk: *Towards transversality of singular varieties: splayed divisors*
134. Workshop and Conference *Doc course: Singularities*, Universidad de Sevilla, Sevilla (Spain), July 2012, plenary speaker; Talk: *Transversality of singular hypersurfaces*
135. Workshop *Aspects of Singularities*, Université Lille 1, Lille (France), June 2012; Talk: *Splayed divisors: transversality of singular hypersurfaces*
136. Algebraic geometry seminar, University of Michigan, Ann Arbor, MI (USA), May 2012; Talk: *Characterizing normal crossing hypersurfaces*
137. Workshop *Linz–Wien Workshop on Algebraic geometry*, St. Michael in der Obersteiermark (Austria), January 2012; Talk: *Transversality of singular hypersurfaces*
138. Research Programme *Algebraic vs. Analytic Geometry*, Erwin Schrödinger International Institute for Mathematical Physics, Wien (Austria), December 2011; Talk: *Free divisors, singularities and normal crossings*
139. Stipendienverleihung “For Women in Science” 2011, Austrian Academy of Sciences, Wien (Austria), November 14 2011; Talk: *Geometrie von Singularitäten*
140. Homological methods seminar, University of Toronto, Toronto, ON (Canada), September 2011; 2 Talks: *Normal crossing divisors and their singularities* and *Visualizing Singularities*
141. Workshop *Free divisors*, Warwick (UK), June 2011; Talk: *Normal crossing divisors and Jacobian ideals*
142. Workshop *Resolution of singularities II*, Cuenca (Spain), April 2011; Talk: *An algebraic characterization of normal crossings*
143. Workshop *Wien–Linz Workshop on Algebraic Geometry*, Krems (Austria), November 2010; Talk: *About the logarithmic residue and a conjecture by K. Saito*
144. Universidad Autónoma de Madrid, Madrid (Spain), June 2010; 2 Talks: *A conjecture about singularities of normal crossing divisors*
145. Seminar de Álgebra, Universidad de Sevilla, Seville (Spain), June 2010; Talk: *Normal crossings, free divisors and Jacobian ideals*
146. Workshop *Resolution of singularities*, Cuenca (Spain), January 2010; Talk: *Blowups in tame monomial ideals*
147. Workshop *Wien–Linz Workshop on Algebraic Geometry*, Rastenfeld (Austria), January 2010; Talk: *Normal crossings and logarithmic differential forms*
148. Algebraic Geometry seminar, Tokyo Institute of Technology, Tokyo (Japan), December 2008; Talk: *Problems and phenomena in resolution of singularities*
149. Workshop *Wien–Linz Workshop on Algebraic Geometry*, Spitz an der Donau (Austria), July 2008; Talk: *Geometry and resolution of surfaces*
150. 4th YMIS *Arc Spaces, Integration and Combinatorial Algebra*, Sedano (Spain), February 2008; Talk: *Blowups in monomial ideals*
151. Workshop *Algebraic Geometry and Singularities*, Nove Hradý (Czech Republic), May 2007; Talk: *Newtonpolyeder und Explosionen*
152. Workshop *Algebraic Geometry and Singularities*, Obergurgl (Austria), September 2006; Talk: *Toric Varieties*

### Short research lecture series

1. Introductory workshop *Commutative Algebra*, SLMATH/MSRI, Berkeley, CA (USA), January 2024; 3 Lectures on *MCM-modules in commutative algebra with a view towards representation theory*
2. Autumn School and Workshop *Singularities and torus actions*, Universität Oldenburg, Oldenburg (Germany), September 2023; 3 Lectures on *Toric resolutions of singularities*

3. New Developments in representation theory arising from cluster algebras Research School, Isaac Newton Institute, Cambridge (UK), September 2021; 4 Lectures on *Matrix factorizations for representation theorists*
4. Follow up of IRTATCA, Barcelona (Spain), June 2019; 4 Lectures on *The McKay correspondence and noncommutative desingularizations*
5. School IS CRA 2019: Isfahan School on Representations of Algebras, Isfahan (Iran), April 2019; 4 Lectures on *The McKay correspondence and noncommutative desingularizations*

### Poster Presentations

1. Stipendienverleihung "For Women in Science" 2011, Austrian Academy of Sciences, Wien (Austria), November 2011; Poster *Geometrie von Singularitäten*
2. Stipendienverleihung 2010, Austrian Academy of Sciences, Wien (Austria), February 2010; Poster: *Synthetic Geometry of Singularities*

### Outreach activities

1. Diversity in Maths Day, University of Manchester, Manchester (UK), June 2024; Workshop on *Diamonds and diagonals: frieze patterns* (together with A. Šneperger)
2. Organizer of outreach event *Women in Mathematics in Graz*, Universität Graz, Graz (Austria), June 2024 (together with A. Bashir, L. Cossu, Z. Nazemian, M. Pompili, G. Ulucak)
3. "Role model" in the Online workshop *Get-together and career advice for young mathematicians*, online, organized by the Austrian Association of Women in Mathematics, June 2024
4. Organizer of *A Celebration for Women in Mathematics (2024) - May 12 Initiative*, SLMath, Berkeley CA (USA), May 2024 (together with I. Adinya, N. Altafi, M. Ascenzi, S. Dobson, M. Espanol, A. Fino, A. Glucksam, E. Grifo, C. Hogan, E. Kirkman, K. Lin, L. Luo, O. Mattei\* (main organizer), C. Miller, J. Plavnik, C. Polini, H. Srinivasan, Š. Špenko)
5. Mentor for work experience week of 6th form Student Nadia Othman (Rossett School, Harrogate), University of Leeds, Leeds (UK), July 2023
6. Women in Maths Day, University of Manchester, Manchester (UK), June 2023; Workshop on *Diamonds and diagonals: frieze patterns* (together with A. Šneperger); and panel discussion about career paths in Mathematics
7. Undergraduate Mathematics in Perspective (Two day conference for sixth form students), University of Leeds, Leeds (UK), July 2021; Talk: *Frieze patterns and infinite symmetries*
8. Maths all around lecture, University of Leeds, Leeds (UK), March 2020; Talk: *Symmetry*
9. Middlesbrough Maths Club, Teesside University, Middlesbrough (UK), October 2019; Talk: *Determinants and diamonds: frieze patterns*
10. Maths all around lecture, University of Leeds, Leeds (UK), February 2019; Talk: *Symmetry*
11. Maths all around lecture, University of Leeds, Leeds (UK), March 2018; Talk: *From Plato via da Vinci to Coxeter: Symmetry*
12. Michigan Math Club, University of Michigan, Ann Arbor MI (USA), November 2016; Talk: *Diamonds and diagonals: frieze patterns*
13. Michigan Math Club, University of Michigan, Ann Arbor MI (USA), December 2015; Talk: *A, D, and E*

### Selected attended Conferences, Workshops, Schools, etc.

1. Arbeitsgemeinschaft *Cluster algebras*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), October 2023
2. Workshop *Women in Noncommutative Algebra and Representation Theory 3 (WINART3)*, BIRS, Banff, Alberta (Canada), April 2022.
3. Workshop *New Developments in representation theory arising from cluster algebras*, Isaac Newton Institute, Cambridge (UK), September 2021.
4. Workshop *Algebraic Geometry and polyhedra*, ONLINE, hosted by ICERM, Brown University RI (USA), April 2021.

5. Conference *LMS Women and Non-binary People in Mathematics*, ONLINE, hosted by University of Leeds, Leeds (UK), February 2021.
6. Conference *Dimers in Combinatorics and Cluster Algebras*, ONLINE, hosted by University of Michigan, Ann Arbor, MI (USA), August 2020.
7. Workshop *Women in Commutative Algebra*, BIRS, Banff, Alberta (Canada), October 2019
8. Workshop *Noncommutative surfaces and Artin's conjecture*, American Institute for Mathematics, San Jose, CA (USA), September 2019
9. *EPSRC Early Career Forum*, Lancaster University, Lancaster (UK), July 2019
10. *EPSRC Early Career Forum*, University of Southampton, Southampton (UK), December 2018
11. Workshop *Stability Conditions and Representation Theory of Finite-Dimensional Algebras*, CMO, Oaxaca (Mexico), October–November 2018
12. *Induction course for new lecturers in the mathematical sciences 2018*, Isaac Newton Institute, Cambridge (UK), September 2018
13. *Applied Algebra and Geometry Fourth meeting*, University of Nottingham, Nottingham (UK), January 2018
14. *EPSRC Early Career Forum*, Queen Mary University, London (UK), December 2017
15. *Mentoring workshop for graduate advisors in mathematics*, University of Michigan, Ann Arbor, MI (USA), May 2017
16. Conference *A View Toward Algebraic Geometry: A conference in honor of David Eisenbud's 70th birthday*, Harbor View Hotel, Martha's Vineyard, MA (USA), May 2017
17. Workshop *Women in Noncommutative Algebra and Representation Theory*, BIRS, Banff, Alberta (Canada), March–April 2016
18. Conference *Theory and applications of syzygies*, Universität des Saarlandes, Saarbrücken (Germany), July 2015
19. Workshop *Representation Theory*, Uppsala Universitet, Uppsala (Sweden), May 2015
20. Conference *Approximation and infinite dimensional geometry*, CIRM, Luminy (France), March 2015
21. Conference *CAAC 2015: Combinatorial Algebra meets Algebraic Combinatorics*, Queen's University, Kingston, ON (Canada), January 2015
22. Conference *GAEL XXII (Géométrie Algébrique en Liberté)*, SISSA, Trieste (Italy), June 2014
23. Workshop *Matrix Factorizations in Algebra, Geometry and Physics*, Mathematisches Forschungszentrum Oberwolfach, Oberwolfach (Germany), September 2013
24. Workshop *The Commutative algebra of Singularities in Birational Geometry*, MSRI, Berkeley (USA), May 2013
25. Workshop *Interactions between Noncommutative Algebra, Representation theory and Algebraic Geometry*, MSRI, Berkeley (USA), April 2013
26. Workshop *Representation theory, homological algebra and free resolutions*, MSRI, Berkeley (USA), February 2013
27. Workshop *Introductory Workshop: Noncommutative Algebraic Geometry and Representation Theory*, MSRI, Berkeley (USA), January 2013
28. Workshop *Connections for women: Noncommutative Algebraic Geometry and Representation Theory*, MSRI, Berkeley (USA), January 2013
29. 22nd annual Route 81 conference *Interactions between commutative algebra and algebraic geometry in honour of Tony Geramita*, Queen's University, Kingston (Canada), October 2012
30. Fields Medal Symposium *Fundamentals of the Langlands programme*, Fields Institute, Toronto (Canada), October 2012
31. Clay Summer School *Resolution of Singularities*, Obergurgl (Austria), June 2012
32. School *D-modules and applications in singularity theory*, Sevilla (Spain), June 2011
33. Conference *Multiplier Ideals in Commutative Algebra and Singularity Theory*, CIRM, Luminy (France), January 2011
34. Conference *Geometry at Large I + II*, Wien (Austria), April / May 2010
35. Workshop *Combinatorial, Enumerative and Toric Geometry*, MSRI, Berkeley (USA), March 2009

36. 5th YMIS *Grothendieck Duality, Valuations, Resolution of Singularities and Tropical Geometry*, Sedano (Spain), February 2009
37. Conference *Workshop: On the Resolution of Singularities*, RIMS, Kyoto (Japan), December 2008
38. Conference *Deformations of Singularities*, Budapest (Hungary), October 2008
39. Conference *Seminar on Singularities: algebraic methods*, Garachico (Spain), September 2008
40. The 1st  $\alpha - \omega$ -conference in Algebraic Geometry, Obergurgl (Austria), October 2007
41. MEGA 2007 (Effective Methods in Algebraic Geometry), Strobl (Austria), June 2007
42. 3rd YMIS *Algebra and Topology of Singularities*, Sedano (Spain), March 2007
43. 2nd YMIS *Combinatorial Convexity and Algebraic Geometry. Applications*, Sedano (Spain), March 2006

## Research Visits

1. Simon Fraser University (February 2024), invited by Dr. K. Honigs
2. Freie Universität Berlin (June 2023), invited by Prof. K. Altmann
3. *Oberwolfach Research fellows: Singularities and cluster algebras* in Oberwolfach (September 2022), together with Dr. B. Schober
4. Institute of Advanced Studies (IAS) *Summer collaborators*, Princeton (July 2022), together with Dr. F. Gandini, Dr. M. Kutler, Dr. J. Kenkel, and Dr. R. Walker – CANCELLED
5. *Research in Groups: Singularities of cluster algebras* at ICMS, Edinburgh (July 2022), together with Dr. A. Benito, Dr. H. Mourtada, and Dr. B. Schober
6. Isaac Newton Institute Cambridge for the full semester program *Cluster algebras and representation theory* (September 2021–December 2021)
7. *Oberwolfach Research fellows: Singularities of cluster algebras* in Oberwolfach (July 2020), together with Dr. A. Benito, Dr. H. Mourtada, and Dr. B. Schober
8. Carleton University (October 2019, October 2018, April 2018), invited by Prof. C. Ingalls
9. CRM Montréal for the program *Quiver varieties and representation theory* (August 2019), invited by Prof. J. Kamnitzer and Prof. H. Thomas
10. Leibniz Universität Hannover (June 2019), invited by Prof. A. Frühbis-Krüger and Dr. B. Schober
11. UQAM, Montréal (October 2018), invited by Prof. H. Thomas
12. Universität Graz (July 2018), invited by Prof. K. Baur
13. Universität Wien (July 2018), invited by Prof. H. Hauser
14. *Research in Pairs: A McKay correspondence for reflection groups* in Oberwolfach (June 2018), together with Prof. C. Ingalls
15. IMAG Montpellier (March 2018), invited by Prof. D. Calaque and Dr. S. Morra
16. Universidad Autónoma de Madrid (December 2017, June 2011, June 2010), invited by Dr. A. Benito and Prof. O. Villamayor
17. University of Toronto (March 2017, August 2016, September 2011), invited by Prof. R.-O. Buchweitz
18. Universität Münster (July 2016), invited by Prof. L. Hille
19. Technische Universität Kaiserslautern (July 2016), invited by Prof. M. Schulze
20. *Research in Pairs: Noncommutative desingularizations of discriminants* in Oberwolfach (July 2015), together with Prof. R.-O. Buchweitz and Prof. C. Ingalls
21. Ruhr-Universität in Bochum (July 2014), invited by Prof. H. Flenner
22. University of Michigan in Ann Arbor (April 2014, May 2013, April–May 2012), invited by Prof. K.E. Smith and Dr. A. Benito
23. University of New Brunswick in Fredericton (November 2013), invited by Prof. C. Ingalls
24. Erwin Schrödinger International Institute for Mathematical Physics in Vienna for the program *Geometry of Topological D-branes, Categories and Applications* (June 2013), invited by Prof. L. Katzarkov

25. Universidad de Sevilla (June 2010), invited by Prof. L. Narváez-Macarro
26. Tokyo Institute of Technology (December 2008), invited by Prof. S. Ishii