

# Gustavo Jasso

Doctor of Philosophy

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*“Mathematics knows no races or geographic boundaries; for mathematics, the cultural world is one country.” – D. Hilbert*

## Biographical information

Full name Gustavo Jasso Ahuja  
Birth date March 18, 1987  
Hometown Guadalajara, Mexico  
Nationality Mexican

### Languages

**Spanish**, native language.

**English**, fluent in speaking, reading and writing.

TOEFL iBT: 114/120 (November 2010).

**German**, intermediate.

Roughly at level B1/B2 of the CEFR (unofficial).

## Research interests

- Homological algebra, homotopical algebra, higher category theory
- Representation theory of finite-dimensional algebras
- Cluster algebras

## Employment history

- 2017–Present **Akademischer Rat auf Zeit**, *Mathematisches Institut, Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, 01.10.2017–Present.  
Investigator in Research Area A2 Representations and symmetries in algebra and topology.
- 2014–2017 **Hausdorff Postdoc**, *Hausdorff Center for Mathematics, Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, 01.10.2014–30.09.2017.  
Mentor: Prof. Dr. Jan Schröer.

## Education history

- 2011–2014 **Doctor of Philosophy (Mathematical Science)**, *Nagoya University*, Nagoya, Japan, 29.09.2014.  
Thesis title: On  $\tau$ -tilting theory and higher Auslander–Reiten theory.  
Advisor: Prof. Dr. Osamu Iyama.
- 2009–2011 **Master of Science degree in mathematics (with honorific mention)**, *Universidad Nacional Autónoma de México (UNAM)*, Mexico City, Mexico.  
Thesis title: El crecimiento de un álgebra de conglomerados de tipo tubular.  
Advisors: Prof. Dr. Michael Barot (official) and Prof. Dr. Christof Geiss (unofficial second advisor).  
GPA: 9.87/10.

2005–2010 **Undergraduate degree in mathematics (with honorific mention)**, *Universidad Nacional Autónoma de México (UNAM)*, Mexico City, Mexico.

Thesis title: Álgebras de Lie de tipo afín extendido y formas cuadráticas.

Advisor: Prof. Dr. Michael Barot.

GPA: 9.84/10.

## Academical distinctions

2018 **International Conference on Representations of Algebras (ICRA) 2018 Award**, *ICRA 2018 Scientific and Award Committees*, Prague, Czech Republic.

Awarded at each session of ICRA for outstanding work by young mathematicians (not older than 35 years of age, except to allow for a broken career) in the field of Representations of Finite Dimensional Algebras. A second prize was awarded to Dr. Julian Külshammer.

2010 **Premio Sotero Prieto 2010**, *Sociedad Matemática Mexicana*, Tuxtla Gutiérrez, Mexico.

Awarded to the best undergraduate thesis in mathematics presented at a Mexican institution between June 2009 and May 2010 (three theses were recognized).

## Publications

### Preprints

- [1] T. Dyckerhoff, G. Jasso, and T. Walde, *Generalised BGP reflection functors via the Grothendieck construction*, arXiv:1901.06993 (2019).
- [2] T. Dyckerhoff, G. Jasso, and T. Walde, *Simplicial structures in higher Auslander–Reiten theory*, arXiv:1811.02461 (2018).
- [3] G. Jasso and J. Külshammer, *Higher Nakayama algebras I: Construction*, arXiv:1604.03500 (2016).

### Published

- [1] G. Jasso and S. Kvamme, *An introduction to higher Auslander–Reiten theory*, Bull. Lond. Math. Soc. **51** (2019), no. 1, 1–24.
- [2] L. Demonet, O. Iyama, and G. Jasso,  *$\tau$ -Tilting Finite Algebras, Bricks and  $g$ -Vectors*, Int. Math. Res. Not. IMRN (2019), no. 3, 852–892.
- [3] O. Iyama and G. Jasso, *Higher Auslander Correspondence for Dualizing  $R$ -Varieties*, Algebr. Represent. Theory **20** (2017), no. 2, 335–354. MR 3638352
- [4] G. Jasso,  *$n$ -abelian and  $n$ -exact categories*, Math. Z. **283** (2016), no. 3–4, 703–759. MR 3519980
- [5] P. A. Bergh, G. Jasso, and M. Thaule, *Higher  $n$ -angulations from local rings*, J. Lond. Math. Soc. (2) **93** (2016), no. 1, 123–142. MR 3455785
- [6] G. Jasso,  *$\tau^2$ -stable tilting complexes over weighted projective lines*, Adv. Math. **273** (2015), 1–31. MR 3311756
- [7] G. Jasso, *Reduction of  $\tau$ -tilting modules and torsion pairs*, Int. Math. Res. Not. IMRN (2015), no. 16, 7190–7237. MR 3428959
- [8] G. Jasso, *The extended affine Lie algebra associated with a connected non-negative unit form*, J. Algebra **409** (2014), 148–161. MR 3198837
- [9] M. Barot, C. Geiß, and G. Jasso, *Tubular cluster algebras II: Exponential growth*, J. Pure Appl. Algebra **217** (2013), no. 10, 1825–1837. MR 3053518

## Conference proceedings, extended abstracts and other documents

- [1] G. Jasso and J. Külshammer, *Nakayama-type phenomena in higher Auslander-Reiten theory*, Representations of algebras, Contemp. Math., vol. 705, Amer. Math. Soc., Providence, RI, 2018, pp. 79–98. MR 3799490
- [2] G. Jasso, *Spherical objects in higher Auslander–Reiten theory*, Representation Theory of Quivers and Finite Dimensional Algebras, vol. 14, Oberwolfach Rep., no. 1, European Mathematical Society Publishing House, 2017, pp. 621–622.
- [3] G. Jasso and J. Külshammer, *The naive approach for constructing the derived category of a  $d$ -abelian category fails*, arXiv:1604.03473 (2016), Not intended for publication.
- [4] G. Jasso, *Reduction of  $\tau$ -tilting modules and torsion classes*, Proceedings of the 16th Workshop on Representation Theory of Algebraic Groups and Quantum Groups, jun 2013, pp. 157–160.
- [5] G. Jasso, *Cluster-tilted algebras of canonical type and quivers with potential*, Proceedings of the 45th Symposium on Ring Theory and Representation Theory, sep 2012, pp. 61–68.
- [6] G. Jasso, *Cluster-tilted algebras of canonical type and graded quivers with potential*, Proceedings of the 15th Workshop on Representation Theory of Algebraic Groups and Quantum Groups, may 2012, pp. 13–18.

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 Teaching-related activities

- 2019 **Lecturer**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, Summer Semester 2019.  
Course: Graduate Seminar on Representation Theory (S4A2).  
Topic: Triangulated categories in the representation theory of finite-dimensional algebras.
- 2018–2019 **Teaching assistant (Assistent)**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, Summer Semester 2018.  
Course: Übungen zu Einführung in die Algebra (V2A1/MB10).  
Notes: Coordinator of the tutorial sessions for the course Einführung in die Algebra taught by Prof. Dr. Jan Schröer (8 tutors).
- 2018 **Lecturer**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, Summer Semester 2018.  
Course: Graduate Seminar on Representation Theory (S4A2).  
Topic:  $\tau$ -tilting theory.
- 2018 **Teaching assistant (Assistent)**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, Summer Semester 2018.  
Course: Übungen zu Lineare Algebra II (V1G4).  
Notes: Coordinator of the tutorial sessions for the course Lineare Algebra II taught by Prof. Dr. Jan Schröer (11 tutors).
- 2016–2017 **Teaching assistant (Assistent)**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, Winter Semester 2016/2017.  
Course: Übungen zu Lineare Algebra I (V1G3).  
Notes: Coordinator of the tutorial sessions for the course Lineare Algebra I taught by Prof. Dr. Jan Schröer (11 tutors).
- 2017 **Research school. New trends in representation theory: the impact of cluster theory on representation theory**, *University of Leicester*, Leicester, UK, 19.06.2016–23.06.2017.  
Notes: Tutorial sessions for the course “ $n$ -representation theory” taught by Prof. Dr. Peter Jørgensen.

2016–2017 **Lecturer**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, Winter Semester 2016/2017.

Course: Advanced Topics in Representation Theory (V5A5) - Differential graded categories, a representation theoretic approach.

Notes: Master course taught through the Hausdorff Center for Mathematics Mentoring Program (29 lectures).

Mentor: Prof. Dr. Jan Schröer.

2010 **Student teaching assistant**, *Facultad de Ciencias, Universidad Nacional Autónoma de México (FC-UNAM)*, Mexico City, Mexico.

Course: Álgebra lineal I (in Spanish).

Lecturer: Raúl González Silva.

### Student supervision and thesis reviews

2017–Present **Advisor for master's thesis in mathematics**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany.

◦ Calvin Pfeifer. “Torsion classes and wide subcategories” (in progress).

Second advisor (Prüfer): Prof. Dr. Jan Schröer.

◦ Jan-Paul Lerch. “Bijections in  $\tau$ -tilting theory” (in progress).

Second advisor (Prüfer): Prof. Dr. Jan Schröer.

◦ Aran Singh Tattar. “On Gorenstein  $k$ -categories”, 16.04.2018.

Second advisor (Prüfer): Prof. Dr. Jan Schröer.

2015–Present **Second advisor (Prüfer) for master thesis in mathematics**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany.

Notes: This is the role of an *examiner and rapporteur* and not the role of an advisor (despite the adopted English translation).

◦ Abdalla Alia, “ $\tau$ -tilting theory” (Prof. Dr. Jan Schröer, 2017).

◦ Islam Foniqi, “Finite Representation Type is Open” (Prof. Dr. Jan Schröer, 2017).

◦ Daniel Rehn, “Modules without Self-extensions over Path Algebras” (Prof. Dr. Jan Schröer, 2017).

◦ Bunlong Lay, “Crawley–Boevy–Kerner functor” (Prof. Dr. Jan Schröer, 2017).

◦ Jonas Röhrig, “Stable Components of Auslander–Reiten Quivers of Representation-Finite Algebras” (Prof. Dr. Jan Schröer, 2017).

◦ Leon Lang, “Asymptotic behaviour of Auslander–Reiten translations” (Prof. Dr. Jan Schröer, 2017).

◦ Mário Marcelo da Conceição Cardoso, “The global dimension of endomorphism rings of generator-cogenerators over Nakayama algebras” (Prof. Dr. Jan Schröer, 2017).

◦ Malte Leip, “Relative Calabi–Yau Structures over Commutative Ring Spectra” (Prof. Dr. Dyckerhoff, 2017).

◦ Vanessa Geierse, “Representation Theory of Polyquivers” (Prof. Dr. Schröer, 2015).

2018–Present **Second advisor (Prüfer) for bachelor's thesis in mathematics**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany.

Notes: This is the role of an *examiner and rapporteur* and not the role of an advisor (despite the adopted English translation).

◦ Xiang Li, “The Perron–Frobenius theorem and its applications” (Prof. Dr. Jan Schröer, 2018).

## Research visits

2018 **Université de Paris Sud XI**, Paris, France.

Hosts: Prof. Dr. Bernhard Keller and Dr. Pierre-Guy Plamondon.

Period: 03.12.2018–07.12.2018.

- 2018 **University of Glasgow**, Glasgow, UK.  
Host: Dr. Theo Raedschelders.  
Period: 12.11.2018–16.11.2018.
- 2017 **University of California, Berkeley**, Berkeley CA, USA.  
Host: Prof. Dr. Lauren Williams.  
Period: 01.10.2017–31.10.2017.
- 2017 **Universität Stuttgart**, Stuttgart, Germany.  
Host: Dr. Julian Külshammer.  
Period: 03.04.2017–05.04.2017.
- 2016 **Norges teknisk-naturvitenskapelige universitet (NTNU)**, Trondheim, Norway.  
Hosts: Prof. Dr. Petter Bergh and Dr. Marius Thaulé.  
Period: 08.06.2016–22.06.2016.
- 2015 **Universität Stuttgart**, Stuttgart, Germany.  
Host: Dr. Julian Külshammer.  
Period: 02.11.2015–25.11.2015.
- 2015 **Universidad Nacional Autónoma de México (UNAM)**, Mexico City, Mexico.  
Hosts: Prof. Dr. Christof Geiß and Prof. Dr. Octavio Mendoza.  
Period: 18.09.2015–18.10.2015.
- 2015 **Universität Stuttgart**, Stuttgart, Germany.  
Host: Dr. Julian Külshammer.  
Period: 07.07.2015–17.07.2015.
- 2015 **Norges teknisk-naturvitenskapelige universitet (NTNU)**, Trondheim, Norway.  
Hosts: Prof. Dr. Petter Bergh and Dr. Marius Thaulé.  
Period: 08.06.2015–14.06.2016.
- 2015 **Universität Stuttgart**, Stuttgart, Germany.  
Host: Dr. Julian Külshammer.  
Period: 19.01.2015–30.01.2015.
- [Research programs](#)
- 2017 **Hausdorff Research Institute for Mathematics**, Bonn, Germany.  
Junior Hausdorff Trimester Program “Symplectic Geometry and Representation Theory”  
Period: 01.11.2017–21.12.2017.  
Notes: Leader of the group ‘Mirror symmetry, Fukaya categories and Auslander–Reiten theory’  
(this is an administrative role).
- 2017 **Mathematisches Forschungsinstitut Oberwolfach**, Oberwolfach, Germany.  
Workshop: Representation Theory of Quivers and Finite Dimensional Algebras.  
Period: 20.02.2017–25.02.2017.
- 2015 **Institut Mittag-Leffler**, *postdoc fellowship*, Djursholm, Sweden.  
Program: Representation Theory.  
Period: 22.03.2015–22.05.2015.
- 2013 **Mathematisches Forschungsinstitut Oberwolfach**, Oberwolfach, Germany.  
Oberwolfach Seminar: Cluster Algebras and Representation Theory.  
Period: 13.10.2013–19.10.2013.

## Grants and scholarships

- 2011–2014 **Travel grant**, *Hausdorff Center for Mathematics, Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany.  
Travel grant for visiting the University of California, Berkeley during the period 01.10.2017–31.10.2017 within the program ‘Academical cooperation Berkeley–HCM’.
- 2011–2014 **Scholarship for studies abroad (Ph.D. program)**, *Consejo Nacional de Ciencia y Tecnología (CONACyT)*, Mexico City, Mexico.
- 2010–2011 **Scholarship for the M.Sc. program in mathematics**, *Consejo Nacional de Ciencia y Tecnología (CONACyT)*, Mexico City, Mexico.

2009–2010 **PAPIIT Scholarship CB-2007/81948**, *Universidad Nacional Autónoma de México (UNAM)*, Mexico City, Mexico.

## Editorial work

### Referee for the following journals (14 + 3 in progress)

Advances in Mathematics (1), Algebras and Representation Theory (3 + 1 in progress), Applied Categorical Structures (1), Communications in Algebra (2), Czechoslovak Mathematical Journal (1), Frontiers of Mathematics in China (1), Glasgow Mathematical Journal (1), Hokkaido Mathematical Journal (1), Homology, Homotopy and Applications (1 in progress), International Mathematics Research Notices (2 + 1 in progress), Journal of Pure and Applied Algebra (1).

### 'Quick opinions' for the following journals (4 + 1 in progress)

Compositio Mathematica (1), Mathematische Zeitschrift (1), Proceedings of the London Mathematical Society (1), Transactions of the American Mathematical Society (1 + 1 in progress).

### Reviewer for the following services

Mathematical Reviews (5 + 2 in progress).

## Event organisation and other academical work

- 2020 **Junior Hausdorff Trimester Program (JHTP) on "New trends in representation theory of algebras"**, *Hausdorff Research Institute for Mathematics (HIM)*, Bonn, Germany, Winter Semester 2020/2021 (precise period to be determined).  
Organiser (jointly with Prof. Dr. Jan Schröer). For information on the JHTPs click [here](#).
- 2019 **Hausdorff Summer School on Stability Conditions in Representation Theory**, *Hausdorff Center for Mathematics (HCM)*, Bonn, Germany, 16.09.2019–20.09.2019.  
Organiser (jointly with Prof. Dr. Jan Schröer).  
Notes: The summer school is part of the academic program of the 'Hausdorff School for Advanced Studies'.
- 2017–Present **Oberseminar Darstellungstheorie**, *Rheinische Friedrich-Wilhelms-Universität Bonn*, Bonn, Germany, since the Winter Semester 2017/2018.  
Notes: Organiser of the research seminar on representation theory at the Mathematisches Institute of the Rheinische Friedrich-Wilhelms-Universität Bonn.
- 2017 **Workshop:  $A_\infty$ -structures in geometry and representation theory**, *Hausdorff Research Institute for Mathematics (HIM)*, Bonn, Germany, 04.12.2017–08.12.2017.  
Organiser (jointly with Dr. Julian Külshammer).  
Notes: The workshop was part of the scientific program of the 'Junior Hausdorff Trimester Program: Symplectic Geometry and Representation Theory.'
- 2017 **Spring school: Cluster Algebras in Mathematical Physics (CAMP)**, *Johannes Gutenberg-Universität Mainz*, Mainz, Germany, 27.03.2017–31.03.2017.  
Member of the Scientific Committee.  
Notes: The spring school is part of the graduate program of the SFB/Transregio 45.
- 2010 **Festival Matemático del Instituto de Matemáticas**, *Instituto de Matemáticas, Universidad Nacional Autónoma de México (IM-UNAM)*, Mexico City, Mexico.  
Member of the Organising Committee.
- 2009 **Social service for the undergraduate program in mathematics**, *Facultad de Ciencias, Universidad Nacional Autónoma de México (FC-UNAM)*, Mexico City, Mexico.  
Notes: Translation to the English language of the book 'Un paseo por Hiperbolía' written by Prof. Dr. Michael Barot and edited by the Sociedad Matemática Mexicana (the translation is unpublished).



## Talks in conferences, workshops and seminars

### Invited talks

- Ago 2019 **Two Weeks of Silting**, *Universität Stuttgart*, Stuttgart, Germany, (scheduled).  
Three lectures on TBD.  
Notes: Part of the summer school of the event.
- Jun 2019 **Categorical and Homotopical Methods in Representation Theory**, *Université de Picardie Jules Verne*, Amiens, France, (scheduled).  
Title: TBD.
- May 2019 **Lond. Math. Soc. Northern Regional Meeting and Workshop on Higher Homological Algebra**, *Newcastle University*, Newcastle upon Tyne, UK, (scheduled).  
Title: TBD.
- Jan 2019 **Thomas Poguntke Memorial Workshop**, *Centre de Recerca Matemàtica (CRM)*, Barcelona, Spain.  
Title: A representation-theoretic perspective on the higher Waldhausen S-constructions.
- Sep 2018 **Advances in Representation Theory of Algebras (ARTA) VII**, *Instituto de Matemáticas, Universidad Nacional Autónoma de México (IM-UNAM)*, Mexico City, Mexico.  
Title: Higher-dimensional Algebras of type  $\mathbb{A}$  and the higher-dimensional Waldhausen S-constructions.
- Jun 2017 **Idun 75. A conference on representation theory of Artin algebras on the occasion of Idun Reiten's birthday**, *Norges teknisk-naturvitenskapelige universitet (NTNU)*, Trondheim, Norway.  
Title: Type  $\mathbb{A}$  phenomena in higher Auslander-Reiten theory.
- Sep 2016 **Algebra and Representation Theory in the North (ARTIN) 48**, *Newcastle University*, Newcastle upon Tyne, UK.  
Title: Mesh categories of type  $\mathbb{Z}\mathbb{A}_\infty$  and tubes in higher Auslander-Reiten theory.
- May 2016 **Second meeting of the US-Mexico Conference on Representation theory, Categorification, and Noncommutative Algebra**, *University of Southern California*, Los Angeles CA, USA.  
Title: Higher Nakayama Algebras
- Mar 2016 **Cluster Algebras and Geometry**, *Westfälische Wilhelms-Universität Münster*, Münster, Germany.  
Title: Higher Nakayama Algebras.
- Oct 2015 **Jornadas de Álgebra 2015**, *Instituto de Matemáticas, Universidad Nacional Autónoma de México (IM-UNAM)*, Mexico City, Mexico.  
Title: From G-sets to dg modules.
- Jul 2015 **Workshop: Silting theory and related topics**, *Università degli Studi di Verona*, Verona, Italy.  
Title:  $\tau$ -rigid finite algebras.
- Jun 2015 **Advances in Representation Theory of Algebras (ARTA) IV**, *Centro de Investigación en Matemáticas, A.C. (CIMAT)*, Guanajuato, Mexico.  
Title: From higher Auslander-Reiten theory to higher homological algebra.
- Mar 2015 **Maurice Auslander International Conference**, *Woods Hole Oceanographic Institute*, Woods Hole MA, USA.  
Title: The  $d$ -abelian property of  $d$ -cluster-tilting subcategories.
- Dec 2014 **Homological Interactions between Representation Theory and Singularity Theory**, *University of Edinburgh*, Edinburgh, Scotland.  
Title: Towards higher homological algebra.

## Contributed talks

- Aug 2018 **XVIII International Conference on Representations of Algebras (ICRA)**, Faculty of Mathematics and Physics, Charles University / Faculty of Electrical Engineering, Czech Technical University in Prague, Prague, Czech Republic.  
Title: Higher-dimensional Algebras of type  $\mathbb{A}$  and the higher-dimensional Waldhausen  $S$ -constructions.  
Notes: Plenary talk delivered as one of the recipients of the ICRA Award 2018.
- Sep 2017 **Advances in Representation Theory of Algebras VI: Geometry and Homology (ARTA VI)**, Centre International de Rencontres Mathématiques (CIRM), Luminy, France.  
Title: Triangulations of cyclic apeirotopes and higher dimensional tilting combinatorics.
- Feb 2017 **Workshop: Representation Theory of Quivers and Finite Dimensional Algebras**, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany.  
Title: Spherical objects in higher Auslander–Reiten theory.
- Oct 2015 **Workshop: “Preprojective Algebras Interacting with Singularities, Cohen-Macaulay Modules and Weighted projective Spaces”**, BIRS/Casa Matemática Oaxaca, Oaxaca, Mexico.  
Title: Higher Nakayama Algebras
- Aug 2015 **BIREP Summer School on Koszul Duality**, Hotel Waldcafé Jäger, Bad Driburg, Germany.  
Title: Koszulity and the Hilbert series of preprojective algebras, after Pavel Etingof and Ching-Hwa Eu.
- May 2015 **‘Tell us about...’ Seminar**, Institut Mittag-Leffler, Djursholm, Sweden.  
Title: An introduction to  $\tau$ -tilting theory.  
Notes: The ‘Tell us about...’ Seminar was one of the running seminars during the Representation Theory Program in 2015 at Institut Mittag-Leffler.
- Aug 2014 **XVI International Conference on Representations of Algebras (ICRA)**, Tsinghua Sanya International Mathematics Forum, Sanya, China.  
Title:  $n$ -abelian categories and  $n$ -exact categories.
- Nov 2013 **Perspectives of Representation Theory of Algebras. Conference honoring Kunio Yamagata on the occasion of his 65th birthday**, Nagoya University, Nagoya, Japan.  
Title: On the simplicial complex associated with support  $\tau$ -tilting modules.
- Oct 2013 **Oberwolfach Seminar: Cluster Algebras and Representation Theory**, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany.  
Title:  $\tau$ -tilting theory.
- Jun 2013 **16th Workshop on Representation Theory of Algebraic Groups and Quantum Groups**, Goura, Japan.  
Title: Reduction of  $\tau$ -tilting modules and torsion classes.
- Sep 2012 **45th Symposium in Ring Theory and Representation Theory**, Shinshuu University, Matsumoto, Japan.  
Title: Cluster-tilted algebras of canonical type and quivers with potentials.
- Aug 2012 **XV International Conference on Representations of Algebras (ICRA)**, Bielefeld University, Bielefeld Germany.  
Title:  $\tau$ -tilting reduction.
- May 2012 **15th Workshop on Representation Theory of Algebraic Groups and Quantum Groups**, Nagano, Japan.  
Title: Cluster-tilted algebras of canonical type and quivers with potential.
- Aug 2010 **XIV International Conference on Representations of Algebras (ICRA)**, Tokyo, Japan.  
Title: The extended affine Lie algebra associated with a connected non-negative unit form.



## Seminar talks

- Feb 2019 **Universität Stuttgart**, *Oberseminare am IAZ*, Stuttgart, Germany, (scheduled).  
Title: Generalised BGP reflection functors via recollements.
- Dec 2018 **Université Paris Diderot (Paris 7)**, *Séminaire du groupe de travail sur la théorie de Auslander–Reiten de dimension supérieure*, Paris, France.  
Title: Combinatorial derived equivalences.
- Dec 2018 **Institut Henri Poincaré**, *Séminaire d'Algèbre de l'Institut de Mathématiques de Jussieu*, Paris, France.  
Title: On the Dold–Kan correspondence.
- Nov 2018 **University of Glasgow**, *Algebra Seminar*, Glasgow, Scotland, UK.  
Title: On the Dold–Kan correspondence.
- Feb 2018 **Freie Universität Berlin**, *Diskrete Geometrie Seminar*, Berlin, Germany.  
Title: Triangulations of cyclic polytopes and simplicial combinatorics.
- Oct 2017 **University of California, Berkeley**, *The UC Berkeley combinatorics seminar*, Berkeley CA, USA.  
Title: Triangulations of even-dimensional cyclic apeirotopes and representations of partially ordered sets.
- Jun 2017 **Universität zu Köln**, *Oberseminar Algebra und Zahlentheorie*, Cologne, Germany.  
Title:  $\tau^2$ -stable tilting complexes over weighted projective lines.
- Apr 2017 **Universität Stuttgart**, *Oberseminare am IAZ*, Stuttgart, Germany.  
Title: Spherical objects in higher Auslander–Reiten theory.
- Oct 2016 **Universität Bielefeld**, *Bielefeld, Germany*, BIREP Seminar.  
Title: Mesh categories of type  $\mathbb{A}_\infty$  and tubes in higher Auslander–Reiten theory.
- Jan 2016 **Rheinische Friedrich-Wilhelms-Universität Bonn**, *Oberseminar Darstellungstheorie*, Bonn, Germany.  
Title: Higher Nakayama Algebras.
- Nov 2015 **Universität Stuttgart**, *Oberseminare am IAZ*, Stuttgart, Germany.  
Title: A short proof of the defect formula for  $d$ -exact sequences.
- Oct 2015 **Universidad Nacional Autónoma de México (IM-UNAM)**, *Seminario de teoría de representaciones*, Mexico City, Mexico.  
Title: Reducción de módulos  $\tau$ -inclinantes.
- Oct 2015 **Universidad Nacional Autónoma de México (IM-UNAM)**, *Seminario de teoría de representaciones*, Mexico City, Mexico.  
Title: Una introducción a la teoría  $\tau$ -inclinante.
- Sep 2015 **Universidad Nacional Autónoma de México (IM-UNAM)**, *Seminario de teoría de representaciones*, Mexico City, Mexico.  
Title: Sobre algunas generalizaciones en álgebra homológica I y II.
- Jul 2015 **Universität Stuttgart**, *Oberseminare am IAZ*, Stuttgart, Germany.  
Title: Higher Nakayama Algebras.
- Jun 2015 **Norges teknisk-naturvitenskapelige universitet (NTNU)**, *Algebra Seminar*, Trondheim, Norway.  
Title: Frobenius  $d$ -exact categories.
- May 2015 **Rheinische Friedrich-Wilhelms-Universität Bonn**, *Oberseminar Darstellungstheorie*, Bonn, Germany.  
Title:  $\tau$ -rigid finite algebras.

- May 2015 **Mälardalens högskola**, *Higher Seminar in Mathematics/Applied Mathematics*, Västerås, Sweden.  
Title: Cluster algebras.
- Mar 2015 **Nagoya University**, *Research Seminar on Representation Theory*, Nagoya, Japan.  
Title: Higher Auslander–Reiten theory, revisited.
- Jan 2015 **Universität Stuttgart**, *Oberseminare am IAZ*, Stuttgart, Germany.  
Title: An introduction to  $\tau$ -tilting theory I and II.
- Oct 2014 **Universität Bielefeld**, *BIREP Seminar*, Bielefeld, Germany.  
Title:  $n$ -abelian categories.
- Oct 2014 **Rheinische Friedrich-Wilhelms-Universität Bonn**, *Oberseminar Darstellungstheorie*, Bonn, Germany.  
Title:  $n$ -abelian categories.
- Mar 2012 **Nagoya University**, *Research Seminar in Representation Theory*, Nagoya, Japan.  
Title: 2-Representation-finite quasi-canonical algebras.
- Nov 2011 **Nagoya University**, *Research Seminar in Representation Theory*, Nagoya, Japan.  
Title: The growth of a cluster algebra of tubular type.
- Jun 2010 **Seminario Conjunto Morelia–México de Teoría de Representaciones de Álgebras**, *Instituto de Matemáticas, Universidad Nacional Autónoma de México (IM-UNAM)*, Mexico City, Mexico.  
Title: Álgebras de Lie de tipo afín extendido.