

# RALF SCHIFFLER

## CURRICULUM VITAE

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### Education

- 2002 Ph.D. (Mathematics), Université du Québec à Montréal, Advisor Robert Bédard
- 1997 M.Sc. (Mathematics), Universität Köln, Germany

### Academic Positions

- since 2016 Professor, University of Connecticut
- 2013 – 2016 Associate Professor, University of Connecticut
- 2008 – 2013 Assistant Professor, University of Connecticut
- 2005 – 2008 Visiting Assistant Professor, University of Massachusetts Amherst, Mentor Eric Sommers
- 2005 – 2005 Postdoc, Université de Sherbrooke, Mentor Ibrahim Assem
- 2003 – 2005 NATEQ Postdoctoral Fellow, Carleton University, Mentor Vlastimil Dlab
- 2002 – 2002 FCAR Postdoctoral Fellow, CRM Université de Montréal

### Honors and Awards

- 2021 Simons Fellowship, Isaac Newton Institute, Cambridge, UK.
- 2017 Simons Visiting Professor, Math. Forschungsinst. Oberwolfach and Universität Bielefeld, Germany.
- 2015 Excellence in Research Award Medal in the Physical Sciences, University of Connecticut.
- 2002 Canada's Governor General's Academic Gold Medal (for best PhD in the University).

### NSF Grants

- 2024 – 2027 NSF Grant, DMS-2348909 , \$295,029 “Cluster algebras, combinatorics, and knot theory”.
- 2021 – 2024 NSF Grant, DMS-2054561, \$282,499 “Cluster algebras, combinatorics, and knot theory”.
- 2018 – 2021 NSF Grant, DMS-1800860, \$150,000, “Cluster algebras, combinatorics, and knot theory”.
- 2013 – 2019 NSF CAREER Grant DMS-1254567, \$400,000, “Cluster algebras, combinatorics and representation theory”.
- 2013 – 2015 NSF Grant, DMS-1101377 “Wall-crossing, stability conditions and mirror symmetry”.
- 2010 – 2013 NSF Grant, DMS-1001637, \$150,000, “Cluster algebras and tilting theory II”.
- 2007 – 2010 NSF Grant, DMS-0700358 and DMS-0908766, \$87,048, “Cluster algebras and tilting theory”.

### Conference Grants

- 2024 NSF Conference Grant, Cluster Algebra Summer School, University of Connecticut, USA
- 2020 – 2023 NSF Conference Grant, DMS-2004170, Int. Conf. on Representations of Algebras, Montevideo, Uruguay, and Buenos Aires, Argentina.
- 2020 – 2021 NSA Conference Grant, Int. Confer. on Representations of Algebras, Trieste, Italy.
- 2016 – 2017 NSF Conference Grant, DMS-1561460, co-PI, Int. Conf. on Representations of Algebras, Syracuse, NY, USA
- 2016 – 2017 NSA Conference Grant, co-PI, Int. Conf. on Representations of Algebras, Syracuse, NY, USA.

### Organizing of Conferences

- 2025 Advances in the Representation Theory of Algebras ARTA, (Scientific Committee).
- 2025 Special Session at the Mathematical Congress of the Americas, Miami, July 21-25.
- 2025 Workshop on Represent. Theory, Symplectic Geometry, and Cluster Alg., BIRS Banff, Canada, Mar 30-Apr 4.
- 2024 International Conf. on Representations of Algebras, ICRA, Shanghai, China Jul 31-Aug 9 (Scientific Committee).
- 2024 Workshop on Cluster Algebras and its Applications, MFO, Oberwolfach, Germany, Jan 14-19.
- 2023 Advances in the Representation Theory of Algebras ARTA, Kingston, Canada (Scientific Committee).
- 2021 Workshop on Interdisciplinary Applications of Cluster Algebras, Isaac Newton Institute, Cambridge, UK, Nov 7-13.
- 2020 International Conference on Representations of Algebras, ICRA, Trieste, Italy (Scientific Committee).
- 2019 Special session on cluster algebras, AMS sectional meeting, UConn Hartford, Apr 13-14.
- 2018 52nd Spring Topology and Dynamical Systems Conference (Scientific Committee), Auburn University, Mar 14-17.
- 2017 Special Session on Repr. Theory of Algebras at the Math. Congress of the Americas, Montréal, July 24-28.
- 2016 International Conference on Representations of Algebras, ICRA, Syracuse.
- 2015 International Conference on Representation Theory and Commutative Algebra, UConn, April 24 – 27.
- 2014 Strings, Quivers and Cluster Algebras in Mathematical Physics, KIAS, Seoul, Korea, Dec. 18 – 22.

- 2014 Cluster Algebras in Combinatorics and Topology, KIAS, Seoul, Korea, Dec. 13 – 17.
- 2014 Cluster Algebras and Representation Theory, KIAS, Seoul, Korea, Nov. 3 – 7.
- 2014 Special Semester in Representation Theory at UConn, Sep. – Oct.
- 2012 Cluster Algebras and Related Topics, CMS Summer Meeting, Regina, June 2 – 4.

## Organizing of Seminars and Schools

- 2024 Cluster Algebra Summer School, UConn, June 2024.
- 2021 Programme on Cluster Algebras and Representation Theory, Isaac Newton Institute, Cambridge UK, Sep – Dec.
- 2020 – 2021 Online Cluster Algebra Seminar (OCAS).
- 2017 Cluster Algebra Spring School at UConn, May 15-19.
- 2014 Special Semester in Representation Theory at UConn, Sep.-Oct.
- 2014 – 2016 Northeastern-UConn Joint Seminar in Representation Theory, spring semesters.
- 2010 – 2019 Cluster Algebras Seminar, UConn.

## PUBLICATIONS

### Books

1. G. Leuschke, F. Bleher, R. Schiffler and D. Zacharia : Representations of Algebras, AMS Contemp. Math. Volume 705, 2018.
2. R. Schiffler. *Quiver Representations*, CMS Books in Mathematics, Springer Verlag, 2014.
3. R. Schiffler. *Variétés de carquois et homologie d'intersection*, Publications LACIM 30, Montréal 2003.

### Articles

1. V. Bazier-Matte and R. Schiffler, Knot theory and cluster algebras III: posets, preprint, 14 pages.
2. E. Barnard, E. Gunawan, Raquel Coelho Simões and R. Schiffler, Maximal almost rigid modules over gentle algebras, preprint, 50 pages.
3. A. Burcroff, N. Ovenhouse, R. Schiffler and S. Zhang, Higher  $q$ -continued fractions, preprint, 23 pages.
4. V. Bazier-Matte and R. Schiffler, Knot theory and cluster algebras II: The knot cluster, preprint, 49 pages.
5. G. Musiker, N. Ovenhouse, R. Schiffler and S. Zhang, Higher dimer covers on snake graphs, preprint, 31 pages.
6. B. Duan and R. Schiffler, Real simple modules over simply-laced quantum affine algebras and categorifications of cluster algebras, preprint, 101 pages.
7. R. Schiffler and K. Serhiyenko, On Gorenstein algebras of finite Cohen-Macaulay type: dimer tree algebras and their skew group algebras, 32 pages, to appear in *J. Algebra*.
8. R. Schiffler and S. Serhiyenko, A geometric model for syzygies over 2-Calabi-Yau tilted algebras, preprint, 107 pages.
9. R. Schiffler, Perfect matching problems in cluster algebras and number theory, in AMS Proceedings of Symposia in Pure Mathematics Volume: 110; 2024.
10. R. Schiffler and S. Serhiyenko, A geometric model for syzygies over 2-Calabi-Yau tilted algebras II, *Intern. Math. Res. Not.*, rna078, (2023).
11. K. Lee, L. Li, M. Rabideau and R. Schiffler, On the ordering of the Markov numbers, *Adv. Appl. Math.* **143** (2023), 102453.
12. E. Barnard, E. Gunawan, E. Meehan, and R. Schiffler, Cambrian combinatorics on quiver representations (type A), *Adv. Appl. Math.* **143**, (2023), 102428.
13. V. Bazier-Matte and R. Schiffler, Knot theory and cluster algebras, *Adv. Math.* **408** B, (2022), 108609
14. R. Schiffler and D. Whiting, Tilting modules arising from knot invariants, *J. Pure Appl. Alg.* **226** (2022) 107041.

15. I. Assem, M. J. Redondo and R. Schiffler, A note on sequential walks, *Contemp. Math.* **761** (2021) 37–50.
16. K. Igusa and R. Schiffler, Frieze varieties are invariant under Coxeter mutation, *Contemp. Math.* **761** (2021) 103–116.
17. K. Lee, L. Li and R. Schiffler, Newton polytopes of rank 3 cluster variables, *Algebraic Combinatorics.* **3** (2020) no. 6 p. 1293-1330.
18. B. Duan and R. Schiffler, A geometric  $q$ -character formula for snake modules, *J. Lond. Math. Soc. (2)* **102** (2020) 846–878.
19. E. Gunawan and R. Schiffler, Frieze vectors and unitary friezes, *J. Comb.* **11**, 4, 681–703 (2020).
20. M. Rabideau and R. Schiffler, Continued fractions and orderings on the Markov numbers, *Adv. Math.* **370**, 26 (2020), Article 107231.
21. H. Gao and R. Schiffler, On the number of support  $\tau$ -tilting modules over Nakayama algebras, *SIGMA* **16** (2020), 058, 13 pages.
22. R. Schiffler and Robinson-Julian Serna, A geometric realization of socle-projective categories for posets of type A, *J. Pure Appl. Alg.* **224**, 12 (2020) Article 106436.
23. K. Lee, L. Li, M. Mills, R. Schiffler and A. Seceleanu, Frieze varieties : A characterization of the finite-tame-wild trichotomy for acyclic quivers, *Adv. Math.* **367** (2020) Article 107130.
24. İ. Çanakçı and R. Schiffler, Snake graphs and continued fractions, *European J. Comb.* Volume **86** (2020).
25. K. Lee and R. Schiffler, Cluster algebras and Jones polynomials, *Selecta Math. New Ser.* (2019) 25: 58.
26. W. Chang and R. Schiffler, Cluster automorphisms and quasi-automorphisms, *Adv. Appl. Math.* **110C** (2019) 342–374.
27. R. Schiffler, Snake graphs, perfect matchings and continued fractions Snapshots of modern mathematics from Oberwolfach, (2019).
28. C. Paquette and R. Schiffler, Group actions on cluster algebras and cluster categories, *Adv. Math.* **345**, (2019) 161–221.
29. I. Assem, M. A. Gatica and R. Schiffler, Hochschild cohomology of partial relation extension algebras, *Comm. Alg.* **46**, (2018) Issue 12.
30. R. Schiffler, Cluster algebras arising from surfaces, Homological Methods, Representation Theory, and Cluster Algebras, CRM Short Courses, Springer, 2018.
31. İ. Çanakçı and R. Schiffler, Cluster algebras and continued fractions, *Compos. Math.* **154** (3) (2018) 565–593.
32. I. Assem, R. Schiffler and K. Serhiyenko, Modules over cluster-tilted algebras that do not lie on local slices, *Archiv Math.* **110**, (2018) 9–18.
33. R. Schiffler and K. Serhiyenko, Injective presentations of induced modules over cluster-tilted algebras, 24 pages, *Algebras and Represent. Theory* **21**, 2, (2018) 447–470.
34. I. Assem, R. Schiffler and K. Serhiyenko, Cluster-tilted and quasi-tilted algebras, *J. Pure Appl. Alg.* **221**, 9, (2017) 2266–2288.
35. İ. Çanakçı and R. Schiffler, Snake graph calculus and cluster algebras from surfaces III: Band graphs and snake rings, *Int. Math. Res. Not.* rnx157 (2017) 1-82.
36. R. Schiffler and K. Serhiyenko, Induced and coinduced modules over cluster-tilted algebras, *J. Algebra* **472**, (2017), 226–258.
37. A. Garcia Elsener and R. Schiffler, On syzygies over 2-Calabi-Yau tilted algebras, *J. Algebra* **470**, (2017), 91–121.
38. R. Schiffler, Lecture notes on cluster algebras, by Robert J. Marsh, book review, *Bull. Amer. Math. Soc.* **53** (2016), 325–330.
39. I. Assem, M. A. Gatica, R. Schiffler, and R. Taillefer, Hochschild cohomology of relation extension algebras, *J. Pure Appl. Alg.* **220**, 7, (2016), 2471–2499.
40. İ. Çanakçı, K. Lee and R. Schiffler, On cluster algebras from unpunctured surfaces with one marked point, *Proc. Amer. Math. Soc Ser. B* **2**, (2015) 35–49.

41. İ. Çanakçı, and R. Schiffler, Snake graph calculus and cluster algebras from surfaces II: Self-crossing snake graphs, *Math. Z.* **281** (1), (2015), 55–102.
42. K. Lee and R. Schiffler, Positivity for cluster algebras, *Annals of Math.* **182** (1), (2015) 73–125.
43. I. Assem, M.J. Redondo and R. Schiffler, On the first Hochschild Cohomology of a cluster-tilted algebra, *Algebr. Represent. Theory* **18** (6), (2015), 1547–1576.
44. I. Assem, V. Shramchenko and R. Schiffler, Cluster automorphisms and compatibility of cluster variables, *Glasgow Math. J.* **56** (3), (2014) 705–720.
45. I. Assem, V. Shramchenko, R. Schiffler : Addendum to Cluster automorphisms and compatibility of cluster variables, *Glasgow Math. J.* **56** (3), (2014).
46. I. Assem, G. Dupont and R. Schiffler, On a category of cluster algebras, *J. Pure Appl. Alg.* **218** (3), (2013) 553–582.
47. K. Lee and R. Schiffler. Positivity for cluster algebras of rank 3, *Publ. Res. Inst. Math. Sci.* **49**, (2013) 601–649.
48. I. Assem, J. C. Bustamante, K. Igusa and R. Schiffler, The first Hochschild cohomology group of a cluster-tilted algebra revisited, *Internat. J. Algebra Comput* **23** (4), (2013) 729–744.
49. İ. Çanakçı, and R. Schiffler, Snake graph calculus and cluster algebras from surfaces, *J. Algebra*, **382**, (2013), 240–281.
50. G. Musiker, R. Schiffler and L. Williams, Bases for cluster algebras from surfaces, *Compositio Math.* **149**, 2, (2013) 217–263.
51. K. Lee and R. Schiffler. A combinatorial formula for rank 2 cluster variables, *J. Alg. Comb.* **37**, 1, (2013) 67–85.
52. I. Assem, M.G. Gatica and R. Schiffler, The higher relation bimodule, *Algebras and Representation Theory* **16**, 4 (2013), 979–999.
53. K. Lee and R. Schiffler. Proof of a positivity conjecture of M. Kontsevich on non-commutative cluster variables, *Compositio Math.* **148**, 6, (2012) 1821–1832.
54. R. Kinser and R. Schiffler. Idempotents in the representation rings of quivers, *Algebra Number Theory* **6**, No. 5, (2012), 967–994.
55. M. Oryu and R. Schiffler, On one-point extensions of cluster-tilted algebras, *J. Algebra* **357**, (2012), 168–182.
56. I. Assem, R. Schiffler and V. Shramchenko. Cluster automorphisms, *Proc. Lond. Math. Soc.* **104** (6), (2012), 1271–1302
57. L. David-Roesler and R. Schiffler. Algebras from surfaces without punctures, *J. Algebra* **350**, (2012), 218–244.
58. I. Assem, G. Dupont, R. Schiffler and D. Smith. Friezes, strings and cluster variables, *Glasgow Math. Journ.* **54**, 1, (2012) 27–60.
59. G. Musiker, R. Schiffler and L. Williams. Positivity for cluster algebras from surfaces, *Advances in Math.* **227** (2011) 2241–2308.
60. I. Assem, T. Brüstle and R. Schiffler. Cluster-tilted algebras without clusters, *J. Algebra* **324** (2010), 2475–2502.
61. K. Igusa and R. Schiffler. Exceptional sequences and clusters, *J. Algebra* **323**, 8, (2010), 2183–2202.
62. G. Musiker and R. Schiffler. Cluster expansion formulas and perfect matchings, *J. Alg. Comb.*, **32**, 2, (2010), 187–209.
63. R. Schiffler. On cluster algebras arising from unpunctured surfaces II, *Advances in Math.* **223** (2010), 1885–1923.
64. R. Schiffler. Cluster algebras and cluster categories, Lecture notes for the Latin American Colloquium, São Pedro, Brazil, (2009).
65. G. Musiker, R. Schiffler : Cluster algebras of unpunctured surfaces and snake graphs, in *DMTCS Proceedings 2009*, 21st International Conference on Formal Power Series and Algebraic Combinatorics FPSAC (2009), 673–684.
66. R. Schiffler and H. Thomas: On cluster algebras arising from unpunctured surfaces, *Int. Math. Res. Not.* **17** (2009), 3160–3189.
67. I. Assem, T. Brüstle and R. Schiffler. On the Galois covering of a cluster-tilted algebra, *J. Pure Appl. Alg.* **213** (7) (2009), 1450–1463.

68. R. Schiffler. A cluster expansion formula ( $A_n$  case), *Electron. J. Combin.* 15 (2008), #R64 1.
69. I. Assem, T. Brüstle and R. Schiffler. Cluster-tilted algebras and slices, *J. Algebra* **319** (2008), 3464–3479.
70. I. Assem, T. Brüstle and R. Schiffler. Cluster-tilted algebras as trivial extensions, *Bull. London Math. Soc.* **40** (2008), 151–162.
71. R. Schiffler. A geometric model for cluster categories of type  $D_n$ , *J. Alg. Comb.* **27** (1) (2008), 1–21.
72. I. Assem, T. Brüstle, R. Schiffler and G. Todorov.  $m$ -cluster categories and  $m$ -replicated algebras, *J. Pure Appl. Alg.* **212** (4) (2008), 884–901.
73. I. Assem, T. Brüstle, R. Schiffler and G. Todorov. Cluster categories and duplicated algebras, *J. Algebra* **350** (1) (2006), 548–561.
74. P. Caldero, F. Chapoton and R. Schiffler. Quivers with relations and cluster tilted algebras, *Algebras and Representation Theory* **9**, no. 4, (2006), 359–367.
75. P. Caldero, F. Chapoton and R. Schiffler. Quivers with relations arising from clusters ( $A_n$  case), *Trans. Amer. Math. Soc.* **358** (2006), no. 3, 1347–1367.
76. R. Schiffler. On the multiplication in the quantized enveloping algebra of type  $A$ , in *Representations of Algebras and Related Topics*, Fields Institute Communications **45**, (2005), 357–361.
77. P. Caldero and R. Schiffler. Rational smoothness of varieties of representations for quivers of Dynkin type, *Annales de l'Institut Fourier* **54**(2) (2004), 295–315.
78. R. Schiffler. Projective rational smoothness of varieties of representations for quivers of type  $A$ , *Representation Theory* **7** (2003), 549–586.
79. R. Bédard and R. Schiffler. Rational smoothness of varieties of representations for quivers of type  $A$ , *Representation Theory* **7** (2003), 481–548.

## Lecture notes

1. R. Schiffler. Lecture notes on cluster algebras from surfaces, CIMPA School, Mar del Plata, 2016.
2. R. Schiffler. Cluster algebras and cluster categories, lecture notes for the Latin American Colloquium, Sao Pedro, Brazil, 2009.

## INVITED RESEARCH OR TEACHING VISITS

CIRM, Luminy, France (one week) May 2025  
 BIRS Banff, Canada (one week) April 2025  
 BIRS Banff, Canada (one week) January 2025  
 University La Sapienza, Rome, Italy (seven weeks) May-June 2024  
 Université Laval, Québec, Canada (one week) March 2024  
 Math. Forschungsinstitut Oberwolfach, Germany (one week) January 2024  
 CIRM, Luminy, France (one week) December 2023  
 Université Laval, Québec, Canada (one week) September 2023  
 University of Leeds, UK (one week) July 2023  
 BIRS Banff, Canada (one week) May 2023  
 Université de Versailles, France (one week) February 2023  
 Math. Forschungsinstitut Oberwolfach, Germany (one week) February 2023  
 Université Laval, Québec, Canada, (one week) January 2023  
 Université Laval, Québec and Université de Sherbrooke, Canada, (one week) November 2022  
 BIRS Oaxaca, Mexico (one week) October 2022  
 Universität zu Köln, Germany (one week) August 2022  
 Trondheim, Ålesund, Norway (two weeks) June 2022  
 University of Kentucky (one week) March 2022  
 University of Kentucky (one week) June 2021  
 BIRS Banff, Canada (one week) October 2020 rescheduled  
 BIRS Oaxaca, Mexico (one week) September 2020 rescheduled  
 Math. Forschungsinstitut Oberwolfach, Germany (one week) January 2020  
 Universidad Nacional de Mar del Plata, Argentina (one week) December 2019

Université de Sherbrooke, Canada (one week) October 2019  
 Université de Sherbrooke, Canada (one week) July 2019  
 Kyoto, Japan (three weeks) June 2019  
 BIRS, Banff, Canada (one week) March 2019  
 University of Nebraska, Lincoln, USA (one week) January 2019  
 University of California, Berkeley, USA (one week) December 2018  
 Université de Sherbrooke, Canada (one week) July 2018  
 Universidad de Antioquia, Medellin, Colombia (two weeks) June 2018  
 CIRM, Luminy, France (one week) March 2018  
 University of Nebraska, Lincoln, USA (one week) December 2017  
 CIRM, Luminy, France (one week) September 2017  
 Universität Bielefeld and MFOberwolfach, Germany (two weeks) February 2017  
 University of California, Berkeley, USA (one week) November 2016  
 Université de Sherbrooke, Canada (one week) May 2016  
 Universidad Nacional de Mar del Plata, Argentina (two weeks) March 2016  
 KIAS Seoul, Korea (two weeks) July 2015  
 Leicester University, United Kingdom (one week) June 2015  
 Universität Münster, Germany (one week) February 2015  
 KIAS Seoul, Korea (two weeks) December 2014  
 Universidad Nacional de Mar del Plata, Argentina (two weeks) November 2014  
 Leicester University, United Kingdom (one week) September 2014  
 Université du Québec à Montréal, Montréal, Canada (one week) June 2014  
 Centre de Recherches Mathématiques, Montréal, Canada (one week) May 2014  
 Math. Forschungsinstitut Oberwolfach, Germany (one week) December 2013  
 Nicolaus Copernicus University in Torun, Poland (one week) September 2013  
 Université de Sherbrooke, Canada (one week) May 2013  
 Universidad Nacional de Mar del Plata, Argentina (one week) December 2012  
 MSRI, Berkeley, USA (one week) October 2012  
 Université de Sherbrooke, Canada (one week) March 2012  
 Wayne State University, USA (one week) February 2012  
 Université de Sherbrooke, Canada (one week) November 2011  
 BIRS, Banff, Canada (one week) September 2011  
 ICERM, Providence, USA (one week) August 2011  
 MSRI, Berkeley, USA (one week) August 2011  
 Universidad Nacional del Sur, Bahia Blanca, Argentina (three weeks) July 2011  
 Math. Forschungsinstitut Oberwolfach, Germany (one week) February 2011  
 Hausdorff Institut Bonn, Germany (three weeks) January 2011  
 Université de Sherbrooke, Canada (one week) October 2010  
 University of California, Berkeley, USA (one week) July 2010  
 Université de Sherbrooke, Canada (one week) January 2010  
 Université de Sherbrooke, Canada (one week) June 2009  
 Université de Sherbrooke, Canada (one week) February 2009  
 Universität Bonn, Germany (two weeks) January 2009  
 Université de Sherbrooke, Canada (three weeks) June 2007  
 Universidad de la Republica, Montevideo, Uruguay (one week) February 2007  
 Université Lyon, France (four weeks) January 2007  
 Centre Intern.de Renc. Mathématiques, Luminy, France (one week) September 2006  
 Université de Sherbrooke, Canada (one week) June 2006  
 North Carolina State University, Raleigh, USA (one week) June 2006  
 Universität Bielefeld, Germany, (one week) May 2006  
 Université de Sherbrooke, Canada (one week) May 2006  
 Université de Sherbrooke, Canada (one week) January 2006  
 Université Lyon, France (three weeks) April 2004

## INVITED SHORT COURSES AND WORKSHOPS

1. Quiver representations, Sapienza Università di Roma, Italy, 2024.
2. Álgebras cluster, teoría de inclinación y invariantes de nudos. Universidad Nacional de Mar del Plata, Argentina, 2019.

3. Cluster algebras from surfaces, Cluster Algebra Spring School, University of Connecticut, USA, 2017.
4. Cluster algebras from surfaces, CIMPA graduate course, Universidad Nacional de Mar del Plata, Argentina, 2016.
5. Cluster algebras and Chern-Simons invariants, First Encounter to Quantum Topology: School and Workshop, KIAS, Seoul, Korea, 2015.
6. Cluster algebras and cluster algebras from surfaces, Cluster algebras and dynamical systems, Winter School, Universität Münster, Germany 2015.
7. Cluster algebras, summer graduate course, Universidad Nacional de Mar del Plata, Argentina, 2014.
8. Cluster algebras and tilting theory, Summer Graduate Workshop, Mathematical Sciences Research Institute MSRI, Berkeley, 2011.
9. Cluster algebras from surfaces, Colloque sur les surfaces et les représentations, Université de Sherbrooke, 2010.
10. Cluster algebras and cluster categories, South American meeting on representations of algebras and related topics, Mar del Plata, Argentina, 2010.
11. Cluster algebras and cluster categories, Latin-American algebra colloquium, Sao Pedro, Brazil, 2009.
12. Cluster categories, Workshop on representation theory and related areas, Universidad de la Republica, Montevideo, Uruguay, 2007.

## TALKS AT INTERNATIONAL MEETINGS

1. Gorenstein algebras of finite Cohen-Macaulay type, 33rd Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2023.
2. Knot theory and cluster algebras, Combinatorial Representation Theory, University of Leeds, UK, 2023.
3. Knot theory and representation theory, Advances in Representation Theory of Algebras, ARTA, Queen's University, Kingston, Canada, 2023.
4. Cluster algebras and joint spectra, BIRS Workshop Joint Spectra and related Topics in Complex Dynamics and Representation Theory, Banff, Canada, 2023.
5. Knot theory and representation theory, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2023.
6. On syzygy categories over dimer tree algebras, Mathematisches Forschungsinstitut Oberwolfach, Germany, 2023.
7. Knot theory and cluster algebras, Joint Mathematics Meeting, Boston, USA, 2023.
8. Syzygy categories over dimer tree algebras, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2022.
9. Knot theory and cluster algebras, Workshop on Bases for Cluster Algebras, Casa Matemática, Oaxaca, México, 2022.
10. Knot theory and cluster algebras, ISM Discovery School on Mutations, UQÀM, Montréal, Canada, 2022.
11. A geometric model for syzygies over certain 2-Calabi-Yau tilted algebras, Oyvind 60, conference in honor of Oyvind Solberg, Trondheim, Norway, 2022.
12. Perfect matching problems, Open Problems in Algebraic Combinatorics, University of Minnesota, 2022.
13. A geometric model for syzygies over certain 2-Calabi-Yau tilted algebras, Representations of Algebras and Related Combinatorics, 2022 (online).
14. Knot theory and cluster algebras, UNIST International Workshop on Geometry and Mathematical Physics 2022, Korea (online).
15. Knot theory and cluster algebras, Programme on Cluster Algebras and Representation Theory, Isaac Newton Institute, Cambridge, UK, 2021.
16. A geometric model for syzygies over certain 2-Calabi-Yau tilted algebras, International Workshop on Cluster Algebras and Related Topics, Morningside Center, China, (online) 2021.

17. On the ordering of the Markov numbers, *Advances in Representation Theory of Algebras*, ARTA, (online), 2021.
18. On the ordering of the Markov numbers, 4th International Colloquium on Representations of Algebras and its Applications; Alexander Zavadskij, Colombia (online), 2020.
19. Proof of two conjectures on Markov numbers, XXXII-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2020.
20. Frieze varieties: A characterization of the finite-tame-wild trichotomy, Conference on Geometric Methods in Representation Theory, University of Missouri, Columbia, USA, 2019.
21. A geometric  $q$ -character formula for snake modules, AMS special session on Hall algebras, cluster algebras and representation theory, University of Wisconsin-Madison, 2019.
22. A geometric  $q$ -character formula for snake modules, XXXI-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2019.
23. Cluster categories and duplicated algebras, Homological Methods and Tilting Theory of Finite Dimensional Algebras, conference in honor of Gordana Todorov's 70th birthday, University of Iowa, 2019.
24. The joint spectrum in representation theory, Journée d'été de théorie des représentations des algèbres, Université de Sherbrooke, Québec, Canada, 2019.
25. Frieze varieties: A characterization of the finite-tame-wild trichotomy, Cluster Algebras 2019, RIMS Kyoto, Japan, 2019.
26. Frieze varieties: A characterization of the finite-tame-wild trichotomy, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2019.
27. Cluster algebras and Jones polynomials, AMS Meeting Hartford, USA, 2019.
28. An introduction to cluster algebras, BIRS workshop Multivariable Spectral Theory and Representation Theory, Banff, Canada, 2019.
29. Cluster automorphisms and quasi-automorphisms, XXX-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2018.
30. Frieze varieties: A characterization of the finite-tame-wild trichotomy, *Advances in Representation Theory of Algebras*, ARTA VI, 60-th birthday of Jose Antonio de la Peña, UNAM, Mexico, 2018.
31. Representation theory and cluster algebras, Geometric and Homological Methods in the Representation Theory of Associative Algebras and Their Applications, CIMPA, Medellin, Colombia, 2018.
32. Cluster algebras and Jones polynomials, Cluster Algebras and Mathematical Physics (CAMP), East Lansing, USA, 2018.
33. Cluster algebras and Jones polynomials, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2018.
34. A characterization of the finite-tame-wild trichotomy, AMS meeting, Northeastern University, Boston, 2018.
35. Cluster algebras and Jones polynomials, Cluster algebras 20 years on, CIRM Luminy, France, 2017.
36. Cluster algebras and knot theory, XXIX-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2017.
37. Cluster-tilted algebras and quasi-tilted algebras, *Advances in Representation Theory of Algebras*, ARTA V, CIRM Luminy, France, 2017.
38. Cluster algebras, snake graphs and continued fractions, *Mathematica Congress of the Americas*, Montréal, Canada, 2017.
39. Cluster algebras, snake graphs and continued fractions, Idun 75 Conference on Representations of Artin algebras on the occasion of Idun Reiten's birthday, Trondheim, Norway, 2017.
40. Cluster algebras, snake graphs and continued fractions, AMS Sectional Meeting, New York City, USA, 2017.
41. Cluster algebras, snake graphs and continued fractions, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2017.



42. Cluster-tilted algebras and quasi-tilted algebras, Mathematisches Forschungsinstitut Oberwolfach, Germany, 2017.
43. Cluster algebras and continued fractions, Joint Notre Dame/La Sapienza workshop on lie theory and cluster algebras, University of Notre Dame's Rome Global Gateway, Rome, Italy, 2016.
44. Modules over cluster-tilted algebras that do not lie on local slices, XXVIII-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2016.
45. Cluster algebras and Chern-Simons invariants, Quivers and bipartite graphs: Physics and Mathematics, University of Notre Dame's London Global Gateway, London, UK, 2016.
46. Snake graphs and continued fractions, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2016.
47. Snake graphs and continued fractions, XXVII-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2015.
48. Cluster algebras of surface type, snake graphs and applications, Workshop on cluster algebras and finite dimensional algebras, Leicester, UK 2015.
49. Cluster-tilted algebras, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2015.
50. Definition and basic properties of cluster algebras, Conference on Strings, Quivers and Cluster Algebras in Mathematical Physics, KIAS, Seoul, Korea, 2014.
51. On the first Hochschild cohomology of spit extension algebras, XXVI-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2014.
52. On cluster algebras from unpunctured surfaces with one marked point, ICERM Workshop on Integrability and Cluster Algebras: Geometry and Combinatorics, Providence, USA, 2014.
53. Surface algebras, Advances in Representation Theory of Algebras, ARTA III, Université du Québec à Montréal, Canada, 2014.
54. Cluster algebras and rings of snake graphs, Workshop on Hall and cluster algebra, Centre de recherches Mathématiques, Montréal, Canada, 2014.
55. Cluster algebras and rings of snake graphs, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2014.
56. Cluster algebras and rings of snake graphs, Cluster algebras and combinatorics, Universität Münster, Germany, 2014.
57. Positivity in cluster algebras, Mathematisches Forschungsinstitut Oberwolfach, Germany, 2013.
58. Positivity in cluster algebras, XXV-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2013.
59. Positivity in cluster algebras, Advances in Representation Theory of Algebras, ARTA II, Torun, Poland 2013.
60. Positivity in cluster algebras, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2013.
61. Positivity in cluster algebras, AMS sectional meeting, University of Colorado, Boulder, USA, 2013.
62. Positivity in cluster algebras of rank 3, XXIV-th Meeting on Representation Theory, Université de Sherbrooke, Sherbrooke, Canada, 2012.
63. Positivity in cluster algebras of rank 3, International Conference on Representations of Algebras (ICRA), Universitt Bielefeld, Germany, 2012.
64. On the first Hochschild cohomology of a cluster-tilted algebra, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2012.
65. A combinatorial formula for rank 2 cluster variables, XXIII-th Meeting on Representation Theory, Bishop's University, Sherbrooke, Canada, 2011.
66. Positivity for cluster algebras from surfaces, ICERM Topical Workshop: Cluster Algebras and Statistical Physics, Providence, USA, 2011.

67. On cluster algebras from surfaces, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2011.
68. Cluster automorphisms, Sectional Meeting of the American Mathematical Society, Iowa, USA, 2011.
69. On cluster algebras from surfaces, Hausdorff Institute for Mathematics, Bonn, Germany, 2011.
70. Minicourse on Cluster Algebras from Surfaces (three lectures), Colloque sur les surfaces et les représentations, Université de Sherbrooke, Canada, 2010.
  - (a) Cluster algebras
  - (b) Cluster algebras from surfaces
  - (c) Expansion formula and positivity
71. Cluster automorphisms, Sectional Meeting of the American Mathematical Society, Syracuse, NY, USA, 2010.
72. Cluster algebras from surfaces, Summer Meeting of the Canadian Mathematical Society, Fredericton, Canada, 2010.
73. Cluster automorphisms, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2010.
74. Minicourse on Cluster Algebras and Cluster Categories (three lectures), South American Meeting on Representations of Algebras and Related Topics, Mar del Plata, Argentina, 2010:
  - (a) Cluster algebras
  - (b) Cluster categories
  - (c) Cluster-tilted algebras
75. Cluster-tilted algebras without clusters, Sectional Meeting of the American Mathematical Society, Riverside, CA, USA, 2009.
76. Cluster-tilted algebras without clusters, XXIth Meeting on Representation Theory of Algebras, Sherbrooke, Canada, 2009.
77. Minicourse on Cluster Algebras and Cluster Categories (four lectures), XVIII Latin-American Algebra Colloquium, Sao Pedro, Brazil, 2009:
  - (a) Cluster algebras
  - (b) Cluster categories
  - (c) Cluster-tilted algebras
  - (d) Cluster algebras from surfaces
78. Clusters, exceptional sequences and reduced expressions, Maurice Auslander Distinguished Lectures and International Conference, Woods Hole, USA, 2009.
79. Positivity for cluster algebras associated to surfaces, International Conference on Cluster Algebras and Related Topics, Mexico City, Mexico, 2008
80. Positivity for cluster algebras associated to surfaces, XXth Meeting on Representation Theory of Algebras, Sherbrooke, Canada, 2008.
81. Positivity for cluster algebras associated to surfaces, Colloquium of non commutative algebra, Sherbrooke, Canada, 2008.
82. Positivité dans les algèbres amassées associées aux surfaces, Second Canada-France Congress, Montreal, Canada, 2008.
83. Cluster-tilted algebras and slices, International Conference on Representations of Algebras and Related Topics, Woods Hole, USA, 2008.
84. Cluster-tilted algebras, XIXth Meeting on Representation Theory of Algebras, Sherbrooke, Canada, 2007.
85. A cluster expansion formula, Maurice Auslander Distinguished Lectures and International Conference, Northeastern University, Boston, USA, 2007.
86. Geometric realizations of cluster categories, International Conference on Representations of Algebras, Torun, Poland, 2007.

87. Formules de développement dans les algèbres amassées, Colloquium on Representation Theory of Algebras, Sherbrooke, Canada, 2007.
88. Mini-course on cluster categories (three lectures), Workshop on Representation Theory and Related Areas, Universidad de la Republica, Montevideo, Uruguay, 2007.
  - (a) Cluster algebras
  - (b) Cluster categories
  - (c) Geometric realizations of cluster categories
89.  $m$ -replicated algebras and  $m$ -cluster categories, Winter Meeting of the Canadian Mathematical Society, Toronto, Canada, 2006.
90. Geometric models for cluster categories of type  $A$  and  $D$ , International Conference on Representations of Algebras and Related Topics, Northeastern University Boston, USA, 2006.
91. Les catégories amassées et les algèbres répliquées, Colloque Homologie et Déformation en Algèbre, Géométrie et Représentations, Centre International de Rencontres Mathématiques, Luminy, France, 2006.
92. Geometric models for cluster categories, XVIIIth Meeting on Representation Theory of Algebras, Sherbrooke, Canada, 2006.
93. Introduction to cluster categories, Conference on Cluster Algebras and Applications, North Carolina State University, Raleigh, USA, 2006.
94. From tilted algebras to cluster-tilted algebras, Workshop on cluster algebras and cluster-tilted algebras, Bielefeld, Germany, 2006.
95. Cluster-tilted algebras, Sectional Meeting of the American Mathematical Society, Durham NH, USA, 2006.
96. Algèbres amassées inclinées, IVe Colloque sur la Théorie des Modules et Sujets Connexes. Université du Québec à Montréal, Canada, 2006.
97. Cluster categories and duplicated algebras, International Conference on Representations of Algebras and Related Topics, Northeastern University Boston, USA, 2005.
98. Quivers with relations arising from clusters, XVIth Meeting on Representation Theory of Algebras, Sherbrooke, Canada, 2004.
99. Quivers with relations arising from clusters, International Conference on Representations of Algebras and Related Topics, Northeastern University Boston, USA, 2004.
100. Quantized enveloping algebras and rational smoothness, XVth Meeting on Representation Theory of Algebras, Sherbrooke, Canada, 2003.
101. On the multiplication in the quantized enveloping algebra of type  $A$ , XIVth Meeting on Representation Theory of Algebras, Sherbrooke, Canada, 2002.
102. On the multiplication in the quantized enveloping algebra of type  $A$ , International Conference on Representations of Algebras and Related Topics (ICRA X), Toronto, Canada, 2002.
103. Singularités des variétés de carquois de type  $A$ , Summer Meeting of the Canadian Mathematical Society, Québec, Canada, 2002.

## SEMINAR TALKS AND COLLOQUIA

1. Cluster algebras and knot theory, Algebra and Geometry Seminar, Università La Sapienza, Rome, Italy, 2024.
2. Cluster algebras and knot theory, Colloquium, University of Alabama, 2024.
3. Gorenstein algebras of finite Cohen-Macaulay type, Online seminar on Representations of Algebras, RA seminar, 2023.
4. On higher dimer covers of snake graphs and higher continued fractions, Algebra Seminar, UConn, 2023.
5. On syzygy categories over dimer tree algebras, Yale University, Dimer Seminar, 2023.
6. Knot theory and cluster algebras, UConn Algebra Seminar, 2022.

7. Knot theory and cluster algebras, Online seminar on clusters and braids, 2022.
8. Knot theory and cluster algebras, Combinatorics Seminar, University of Kentucky, 2022.
9. Cluster algebras and knot theory, Colloquium, Rutgers University (online), 2022.
10. An introduction to cluster algebras, Colloquium, University of Alabama (online), 2020.
11. A geometric model for syzygies over certain 2-Calabi-Yau tilted algebras, FD-Seminar Online, 2020.
12. Un modèle géométrique pour les syzygies sur certaines algèbres 2-Calabi-Yau inclinées, Séminaire d'Algèbre (online), Université de Sherbrooke, Canada, 2020.
13. A geometric model for representations of quivers of type  $A$ , Algebra Seminar, UConn, Storrs, USA, 2020.
14. Cluster algebras and representation theory, Cluster Algebra Seminar, UConn, Storrs, USA, 2020.
15. Modules inclinants provenant des noeuds, Algebra Seminar, Université de Sherbrooke, Canada, 2019.
16. A geometric  $q$ -character formula for snake modules, Cluster Algebra Seminar, UConn, Storrs, USA, 2019.
17. An introduction to cluster algebras, Colloquium at SUNY Albany, USA, 2019.
18. Frieze varieties: A characterization of the finite-tame-wild trichotomy, UConn Algebra Seminar, Storrs, USA, 2019.
19. Frieze varieties: A characterization of the finite-tame-wild trichotomy, Commutative Algebra Seminar at University of Nebraska, Lincoln, USA, 2019.
20. Variétés de frieses: une caractérisation de la trichotomie fini-docile-sauvage pour les carquois acycliques, Séminaire d'Algèbre, Université de Sherbrooke, Québec, Canada, 2018.
21. What is a cluster algebra. SIGMA Graduate Student seminar, University of Connecticut, Storrs, USA, 2018.
22. A characterization of the finite-tame-wild trichotomy, Cluster Algebra Seminar, University of Connecticut, Storrs, USA, 2018.
23. Cluster algebras and knot theory, Geometric Topology Seminar, Columbia University, New York, USA, 2017.
24. Cluster algebras and knot theory, Cluster Algebra Seminar, University of Connecticut, Storrs, USA, 2017.
25. Cluster algebras, snake graphs and continued fractions, Algebra Seminar, Universität Bielefeld, Germany, 2017.
26. Cluster algebras, snake graphs and continued fractions, Combinatorics Seminar, University of California, Berkeley, USA 2016.
27. Cluster algebras and continued fractions, SIGMA seminar, UConn, USA, 2016.
28. A combinatorial interpretation of continued fractions, UConn Math Club, USA, 2016.
29. Graphes de serpents et fractions continues, Séminaire d'Algèbre, Université de Sherbrooke, Québec, Canada, 2016.
30. Snake graphs and continued fractions, Discrete Mathematics Seminar, Brown University, Providence, USA, 2016.
31. Snake graphs and continued fractions, Algebra Seminar, University of Connecticut, Storrs, USA, 2016.
32. Graphes de serpents et fractions continues, Séminaire de Combinatoire, LACIM, Université du Québec à Montréal, Québec, Canada, 2015.
33. Cluster categories, Cluster Algebra Seminar, University of Connecticut, Storrs, USA, 2015.
34. Introduction to cluster algebras, Cluster Algebra Seminar, University of Connecticut, Storrs, USA, 2015.
35. Snake graphs and continued fractions, Cluster Algebra Seminar, University of Notre Dame, USA, 2015.
36. Cluster algebras, snake graphs and applications, Séminaire SAG, Université de Sherbrooke, Québec, Canada, 2015.
37. Cluster algebras and invariant theory, Cluster Algebra Seminar, University of Connecticut, Storrs, USA 2015.
38.  $\tau$ -tilting theory and Caldero-Chapoton algebras, Northeastern UConn Joint Seminar in Representation Theory, 2014.
39. Cluster algebras and rings of snake graphs, Cluster Algebra Seminar, University of Connecticut, Storrs, USA 2014.

40. Positivity for cluster algebras, Algebra Seminar, University of Connecticut, USA, 2014.
41. Positivity for cluster algebras, Pure Mathematics Seminar, University of Leicester, UK, 2014.
42. Cluster algebras and rings of snake graphs, Cluster Algebra Seminar, University of Connecticut, Storrs, USA, 2014.
43. Representation type of Jacobian algebras, Cluster Algebra Seminar, University of Connecticut, Storrs, USA, 2013.
44. Cluster algebras, six talks in the Cluster Algebra Seminar, University of Connecticut, Storrs, USA, 2013.
45. Caracteres de conglomerada, Seminario de Algebra, Universidad Nacional de Mar del Plata, Argentina, 2012.
46. On cluster algebras from surfaces, Colloquium, Wayne State University, 2012.
47. Positivity in cluster algebras of rank 3, Quivers and Invariant Theory Seminar, Northeastern University, Boston, USA, 2012.
48. Positivity in cluster algebras, Algebra Seminar, University of Connecticut, Storrs, USA, 2012.
49. Sur les extensions ponctuelles des algèbres inclinées amassées, Séminaire d'Algèbre, Université de Sherbrooke, Canada, 2011.
50. Cluster-tilted algebras, two talks in the Cluster Algebra Seminar, University of Connecticut, Storrs, USA 2012.
51. Cluster algebras from surfaces I, Representation Theory Seminar, University of Maryland, USA, 2011.
52. Cluster algebras from surfaces II, Geometry Seminar, University of Maryland, USA, 2011.
53. Cluster theory and quantum dilogarithm identities, five talks in the Cluster Algebra Seminar, University of Connecticut, Storrs, USA 2011.
54. A combinatorial formula for rank 2 cluster variables, Algebra Seminar, University of Connecticut, Storrs, USA, 2011.
55. Cyclic sieving and cluster algebras, Cyclic Sieving Seminar, University of Connecticut, Storrs, USA 2011.
56. Path algebras, Colloquium, Universidad Nacional del Sur, Bahia Blanca, 2011.
57. Quivers with potentials, three talks in the Cluster Algebra Seminar, University of Connecticut, Storrs, USA 2011.
58. Applications to cluster algebras, Monoidal Categorification Seminar, University of Connecticut, Storrs, USA 2010.
59. Cluster automorphisms, Cluster Algebra Seminar, University of Connecticut, Storrs, USA 2010.
60. Cluster algebras from surfaces, four talks, Cluster Algebra Seminar, University of Connecticut, Storrs, USA 2010.
61. Path algebras, Computer Science Graduate Seminar, University of Connecticut, Storrs, USA 2010.
62. Cluster-tilted algebras, Representation Theory Seminar, University of Massachusetts, Amherst, USA, 2010.
63. Cluster-tilted algebras, Algebra Seminar, University of Connecticut, Storrs, USA, 2010.
64. Path algebras and cluster-tilted algebras, SIGMA Graduate Seminar, University of Connecticut, Storrs, USA, 2009.
65. Introduction aux algèbres amassées, Colloquium, Université de Sherbrooke, 2009.
66. Clusters in terms of reduced expressions in Weyl groups, Algebra Seminar, University of Connecticut, Storrs, USA, 2009.
67. Algèbres amassées, suites exceptionnelles et expressions réduites, Séminaire d'Algèbre, Université de Sherbrooke, Canada, 2009.
68. On cluster algebras arising from unpunctured surfaces II, Representation Theory Seminar, Universität Bonn, Germany, 2009.
69. On cluster algebras arising from unpunctured surfaces I, Representation Theory Seminar, Universität Bonn, Germany, 2009.
70. Positivity for cluster algebras associated to surfaces, Combinatorics Seminar, Massachusetts Institute of Technology, Cambridge, USA 2008.
71. Cluster algebras from triangulated surfaces, Algebra Seminar, University of Connecticut, Storrs, USA, 2008.

72. Cluster algebras, Algebra Seminar, University of Connecticut, Storrs, USA, 2008.
73. Positivity for cluster algebras associated to surfaces, Algebra and Combinatorics Seminar, University of New Brunswick, Fredericton, Canada, 2008.
74. Positivity for cluster algebras associated to surfaces, Representation Theory Seminar, University of Massachusetts, Amherst, USA, 2008.
75. Sur la Structure Combinatoire des Algèbres Amassées, Colloquium on Modules and Related Topics, Université du Québec à Montréal, Canada, 2008.
76. Quiver representations: basic facts and some recent developments, University of Maine, 2008.
77. Quiver representations: basic facts and some recent developments, Loyola University, 2008.
78. Quiver representations: basic facts and some recent developments, University of Connecticut, 2008.
79. Quiver representations: basic facts and some recent developments, University of Waterloo, 2008.
80. Quiver representations: basic facts and some recent developments, Kansas State University, 2007.
81. Cluster-tilted algebras, Geometry-Algebra-Singularities-Combinatorics Seminar, Northeastern University Boston, USA, 2007.
82. Algèbres amassées et surfaces triangulées, Séminaire d'Algèbre, Sherbrooke, Canada, 2007.
83. What is a path algebra?, The "What Is..." Graduate Seminar, University of Massachusetts, Amherst, USA, 2007.
84. Des modèles géométriques pour les algèbres amassées, Séminaire d'Algèbre, IGD Université Claude Bernard Lyon 1, France, 2007.
85. Varieties of representations of quivers, Quiver Varieties Seminar, University of Massachusetts, Amherst, USA, 2006.
86. Développements récents dans les algèbres inclinées amassées, Séminaire d'Algèbre, Université de Sherbrooke, Canada, 2006.
87. Quiver representations: basic facts and some recent developments, Brandeis-Harvard-MIT-Northeastern Joint Mathematics Colloquium, Brandeis University, Boston 2005.
88. Quivers with relations arising from clusters, Representation Theory Seminar, University of Massachusetts, Amherst, USA, 2005.
89. Introduction aux algèbres clusters 2, Séminaire d'Algèbre, Université de Sherbrooke, Canada, 2005.
90. Introduction aux algèbres clusters 1, Séminaire d'Algèbre, Université de Sherbrooke, Canada, 2005.
91. More examples of cluster algebras, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2004.
92. Cluster tilted algebras, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2004.
93. Introduction to cluster algebras, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2004.
94. Sur la multiplication dans l'algèbre enveloppante quantique de type  $A$ , Séminaire d'Algèbre, IGD Université Claude Bernard Lyon 1, France, 2004.
95. Quantum groups and rational smoothness, Algebra Seminar, Carleton University, Ottawa, Canada, 2003.
96. Explicit results in type  $A$ , Representation Theory Seminar, Carleton University, Ottawa, Canada, 2003.
97. Geometric interpretation of base change II, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2003.
98. Geometric interpretation of base change I, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2003.

99. Bases of quantized enveloping algebras II, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2003.
100. Bases of quantized enveloping algebras I, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2003.
101. Quantized enveloping algebras and Hall algebras, Representation Theory Seminar, Carleton University, Ottawa, Canada, 2003.
102. Algèbres enveloppantes quantiques et algèbres de Hall, Séminaire de Combinatoire, Université du Québec à Montréal, Canada, 2002.
103. On quiver varieties of type  $A$ , Quebec Mathematical Science Colloquium, Sherbrooke, Canada, 2001.
104. On quiver varieties of type  $A$ , Student Colloquium of the Institut des Sciences Mathématiques, McGill University, Montréal, Canada, 2001.

## ADVISING

### PhD Students

Ben Grant, University of Connecticut, PhD expected 2028  
 Ryan Schroeder, University of Connecticut, PhD expected 2025  
 PJ Apruzzese, University of Connecticut, PhD expected 2024  
 Damián Wesenberg, Universidad Nacional de Mar del Plata, PhD expected 2024  
 Hanpeng Gao, Nanjing University (co-addvised), PhD 2022  
 Bing Duan, Lanzhou University, PhD 2019, now postdoc at Lanzhou University  
 Michelle Rabideau, University of Connecticut, PhD 2018, now Assistant Professor at U. Hartford  
 Ana Garcia Elsener, Universidad Nacional de Mar del Plata, PhD 2017, now faculty at UNMdP, Argentina  
 Stephen Zito, University of Connecticut, PhD 2016, now Assist. Prof. iR at U. Connecticut  
 Khrystyna Serhiyenko, University of Connecticut, PhD 2015, now Assistant Professor at U. Kentucky  
 İlke Çanakçı, University of Connecticut, PhD 2013, now Assistant Professor at Vrije U. Amsterdam, NL  
 Lucas David-Roesler, University of Connecticut, PhD 2012

### Masters Students

David Whiting, University of Connecticut, Masters 2020, now PhD student at Michigan State  
 Miki Oryu, Okayama University, Masters 2011

### Postdocs

Véronique Bazier-Matte, University of Connecticut 2020-2022, now tenure track at Université Laval, Canada  
 Wen Chang, University of Connecticut 2017-2018, now faculty at Shaanxi Normal University  
 Emily Gunawan, University of Connecticut 2017–2020, now tenure track at University of Massachusetts, Lowell  
 Charles Paquette, University of Connecticut 2014–2017, now tenure track at RMC Canada  
 Kyungyong Lee, University of Connecticut 2010–2011, now Associate Prof. at U. Alabama  
 Ryan Kinser, University of Connecticut 2009–2011, now Associate Prof. at U. Iowa

## RESEARCH VISITORS AT UCONN

Véronique Bazier-Matte, Université Laval, Québec, (1 week) June 2024.  
Kayla Wright, University of Minnesota, (1 week) Feb 2024.  
Khrystyna Serhiyenko, University of Kentucky, (1 week) May 2023.  
Azzurra Ciliberti, Sapienza Università di Roma, Italy, (4 weeks) Mar-Apr 2023.  
Jerzy Weyman, Jagiellonian University in Krakow, Poland (4 weeks) Apr-May 2022.  
Sira Gratz, University of Glasgow, (1 week) Apr 2020 (canceled)  
Khrystyna Serhiyenko, University of Kentucky, (1 week) Jan 2020  
Ana Garcia Elsener, Universität Graz, Austria, (1 week) Apr 2019  
Khrystyna Serhiyenko, UC Berkeley, (2 weeks) June 2018  
Min Huang, Université de Sherbrooke, (1 week) Oct 2018  
Khrystyna Serhiyenko, UC Berkeley, (2 weeks) Dec 2017  
Emine Yıldırım, Université du Québec à Montréal, (1 week) Nov 2017  
Khrystyna Serhiyenko, UC Berkeley, (2 weeks) June 2017  
Sira Gratz, Oxford University, UK, (2 weeks) March 2017  
Diego Bravo, Montevideo, Uruguay, (5 weeks) Feb 2017  
Hipolito Treffinger, Sherbrooke, Canada (1 week) Dec 2016  
Khrystyna Serhiyenko, UC Berkeley, (1 week) Nov 2015  
İlke Çanakçı, Leicester, UK, (2 weeks) April 2014

## LONG TERM RESEARCH VISITORS AT UCONN

Hanpeng Gao, Nanjing University, Sep 2019 – Feb 2021  
Gordana Todorov, Northeastern University, Jan. – Apr. 2018  
Kiyoshi Igusa, Brandeis University, Jan. – Apr. 2018  
Bing Duan, Lanzhou University, Sep. 2017 – Apr. 2019  
Wen Chang, Shaanxi Normal University, Dec. 2017 – Dec. 2018  
Julian Serna Vanegas, Univ. Nacional de Colombia, Bogotá, Sep. – Dec. 2018

## COURSES TAUGHT

### At the University of Connecticut:

#### Undergraduate

Precalculus, Calculus I, Calculus II, Multivariable Calculus, Applied Linear Algebra, Transition to Advanced Mathematics, Linear Algebra, Abstract Algebra, Number Theory, Combinatorics, Scholars Course on Quiver Representations.

#### Graduate

Abstract Algebra I, Abstract Algebra II, Representations of Algebras, Tilting Theory, Homological Algebra, Introduction to Cluster-Tilting Theory, Cluster Algebras.

### At the University of Massachusetts

Basic Math Skills, Calculus I, Calculus II, Honors Calculus I, Honors Calculus II, Abstract Algebra I, Abstract Algebra II, Honors Abstract Algebra I, Honors Abstract Algebra II.

### At the Université du Québec à Montréal

General Mathematics, Calculus.

### At the Sapienza Università di Roma

Quiver representations, PhD course, 2024

### At the Universidad Nacional de Mar del Plata

Cluster algebras, Graduate Summer School 2014, Cluster algebras, tilting modules and knot invariants, Graduate Summer School 2019.

### At the Universidad Nacional del Sur, Bahia Blanca

Cluster Algebras from Surfaces, Graduate Summer School 2011.



## **At the University of New Brunswick**

Quiver representations, Graduate Summer School, 2008.

## **OTHER**

### **Editorship**

Editorial board member for the Journal and the Bulletin of the London Mathematical Society since 2022

Guest editor for Special Issue on Cluster Algebras in Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)

### **Conference board member**

Permanent member of the scientific committee of the biennial conference Advances in Representation Theory of Algebras, ARTA, since 2023.

Scientific Committee for the International Conference on Representations of Algebras (ICRA) 2020, 2024.

### **Reviewer for the following Journals**

Advances in Mathematics, Advances in Applied Mathematics, Algebra and Number Theory, Algebras and Representation Theory, Algebraic Combinatorics, Annales des Sciences Mathématiques du Québec., Annals of Combinatorics, Bulletin des Sciences Mathématiques, Bulletin of the Australian Mathematical Society, Cahiers mathématiques de l'Université de Sherbrooke, Combinatorial Theory Series A, Communications in Algebra, Compositio Mathematica, Duke Mathematical Journal, Electronic Journal of Combinatorics, European Journal of Combinatorics, FPSAC, Forum of Mathematics, Pi, Forum of Mathematics, Sigma, Geometric and Functional Analysis, Inventiones Mathematicae, International Electronic Journal of Algebra, International Journal of Algebra and Computation, International Mathematics Research Notices, Journal of Algebra, Journal of Algebra and its Applications, Journal of Algebra and Number Theory, Journal of Algebraic Combinatorics, Journal of Combinatorial Algebra, Journal of Geometric Analysis, Journal of Geometry and Physics, Journal of Pure and Applied Algebra, Journal of the American Mathematical Society, Journal of the London Mathematical Society, Linear Algebra and its Applications, London Mathematical Society, Mathematische Annalen, Mathematische Zeitschrift, Nagoya Mathematical Journal, Operators and Matrices, Periodica Mathematica Hungarica, Proceedings of the American Mathematical Society, Proceedings of the London Mathematical Society, Pacific Journal of Mathematics, Research in the mathematical sciences, Representation Theory, Selecta Mathematica, Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), Topology and its Applications, Transactions of the American Mathematical Society,

### **Panels and Committees**

Panel member for the National Science Foundation (seven times)

Ad hoc Reviewer for NSF, CRSNG and Fields Institute

Proposal reviewer for the Agence National de la Recherche (ANR) France, Fondation Sciences Mathématiques De Paris, The Dutch Research Council (NWO), the Royal Swedish Academy of Sciences and Polish National Science Center.

### **PhD-Committee member for**

Waseet Kazmi, University of Connecticut, 2023

Elizabeth Sheridan-Rossi, University of Connecticut, 2020

Michael Joseph, University of Connecticut, 2016, now Assistant Professor at Dalton State.

Tze-Chun Oh, University of Connecticut, 2016.

Andras Lorincz, University of Connecticut, 2016, now Assistant Professor at the University of Oklahoma.

Jon Judge, University of Connecticut, 2016.

Gabriel Feinberg, University of Connecticut, 2013, now Assistant Professor at Washington College.

Benjamin Salisbury, University of Connecticut, 2012, now Professor at Central Michigan University.

Ryan Schwarz, University of Connecticut, 2011.

### **External PhD-committee member for**

Azzurra Ciliberti, Sapienza Università di Roma, 2024

Benjamin Blanchette, Université de Sherbrooke, 2023

Ndongo Diouf, Université de Sherbrooke, 2018

Emine Yıldırım, Université du Québec à Montréal, 2018, now postdoc at Leeds University, UK

Shijie Zhu, Northeastern University, 2018, postdoc at U. Iowa

Elisangela Silva Diaz, Universidade Federal de Goiás, Brazil

Yadira Valdivieso Diaz, Universidad Nacional de Mar del Plata, Argentina, 2014, now Lecturer at University of the Americas Puebla, México

Louis Beaudet, Université de Sherbrooke, 2014

Bertrand Nguefack, Université de Sherbrooke, 2009.

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