

# Aram Dermenjian

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## Academic Experience

- **Visiting Researcher**, *Université du Québec à Montréal (LACIM)*, Montréal, Canada.  
(May 2015 - June 2015)
- **Visiting Researcher**, *L'École Polytechnique (LIX)*, Paris, France.  
(Feb 2015 - Apr 2015)

## Professional Experience

### Teaching

- **Lecturer**, *UQAM*, Montréal, Canada.  
Fall 2018    MAT0344 Integration Calculus  
Fall 2017    MAT1600 Matrix Algebra
- **Teaching Assistant**, *UQAM*, Montréal, Canada.  
Winter 2017    INF1130 Discrete Mathematics  
Winter 2017    ANG3005 English Language and Literature I  
Fall 2016    INF1130 Discrete Mathematics  
Fall 2016    ANG4152 Pronunciation III  
Fall 2016    ANG3052 Speaking II

### Other

- **Director of Applied Technologies [volunteer]**, *Delta Lambda Phi Fraternity*, USA.  
(June 2010 - June 2015)  
Created a website for event and member management.
- **Graduate Developer**, *Ampersand E-Commerce*, Manchester, UK.  
(Sept 2014 - Jan 2015)  
Used Magento for the creation of e-commerce websites.
- **PHP Developer**, *BetterEdge Technology*, Chandler, AZ, USA.  
(July 2012 - Sept 2013)  
Used PHP to create e-commerce websites.
- **PHP Developer [Consultant]**, *Spring Studio*, San Francisco, CA, USA.  
(June 2012 - Dec 2012)  
Used jQuery for the creation of mobile websites.
- **Software Engineer**, *Bright Media Inc.*, San Francisco, CA, USA.  
(Sept 2011 - May 2012)  
Used PHP for the creation of a job-search website.
- **PHP Developer**, *Quinstreet Inc.*, Foster City, CA, USA.  
(Oct 2010 - Aug 2011)  
Used PHP for the creation of education websites.
- **PHP Developer and Network administrator**, *Spring Studio*, Sausalito, CA, USA.  
(Dec 2008 - Sept 2010)  
Used PHP for the creation of e-commerce websites.

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## Education

- **Ph.D. in Mathematics (in progress)**, *Université du Québec à Montréal*, Montréal, Canada, (Expected Graduation in June 2019).  
Supervisor: Christophe Hohlweg and Vincent Pilaud (École Polytechnique, Paris, France)
- **M. Sc. Pure Mathematics and Mathematical Logic**, *University of Manchester*, Manchester, UK, (2013 - 2014).
- **Bachelor of Science Mathematics**, *University of California*, Davis, CA, (2004 - 2008).
  - The final year (2007-2008) was completed at Leeds University, Leeds, United Kingdom, under a study abroad program.

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## Research Contributions

### Publications

- A. Dermenjian, C. Hohlweg, V. Pilaud. *The facial weak order and its lattice quotients* *Trans. Amer. Math. Soc.* **370** (2018), 1469-1507 DOI: <https://doi.org/10.1090/tran/7307>

### Other refereed contributions to research

- A. Dermenjian, C. Hohlweg, V. Pilaud. *The facial weak order in finite Coxeter groups, to appear in Proceedings FPSAC 2016 (Vancouver, July 2016).*

### Master's Thesis

- Aram Dermenjian, *Noncrossing partitions of Coxeter groups*, Master Thesis, University of Manchester, September 2014, 146 pages.

### In preparation

- A. Dermenjian, C. Hohlweg, T. McConville, V. Pilaud. *The facial weak order on central hyperplane arrangements.*

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## Research Funds

- **International Internship**, *Fonds de recherche du Québec - Nature et technologies*, \$15,000, (2018).
- **Merit scholarship program for foreign students**, *Fonds de recherche du Québec - Nature et technologies*, \$26,667, (2017-2018).
- **International Scholarship**, *Armenian General Benevolent Union*, \$1,900, (2017-2018).
- **ISM Graduate Scholarship**, *Institute of Mathematical Sciences*, \$12,833, (2016 - 2017).
- **Fee exemption Scholarship**, *UQAM*, (2015 - 2016).
- **ISM Graduate Scholarship**, *Institute of Mathematical Sciences*, \$14,000, (2015 - 2016).

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## Research Interests

My area of interest lies primarily in algebraic combinatorics and geometry. Primarily I'm interested in Coxeter groups, root systems, and Cluster algebras

## Seminar Talks

- *Future talks*
  - *AMS Sectional Meeting - Cluster algebras and related topics, Hartford, CT, USA (to be given April 2019)*
  - *7th Canadian Discrete and Algorithmic Mathematics Conference, Vancouver, BC, Canada (to be given May 2019)*
- *The facial weak order in simplicial hyperplane arrangements*
  - *Applied Algebra Seminar, York University, Toronto, Canada (November 2018)*
- *The facial weak order in finite Coxeter groups*
  - *10th Ottawa Mathematics Conference, Ottawa (June 2017)*
  - *Séminaire du LaCIM, UQAM, Montréal, Canada (November 2016)*
  - *FPSAC 2016, Vancouver, Canada (July 2016) \$800 travel scholarship awarded by the NSF*
  - *2016 CMS Summer Meeting, Edmonton, Canada (June 2016)*
  - *19th Panquebec student colloquium of the ISM, Montréal, Canada (May 2016)*
- *The facial weak order and its lattice quotients*
  - *Algebraic Combinatorics and Group Actions, Herstmonceux Castle, UK (July 2016) \$2,000 travel scholarship awarded*
  - *Séminaire Lotharingien de Combinatoire, Strasbourg, France (April 2016) \$500 travel scholarship awarded by the Institute of Mathematical Sciences*
- *Introduction to Python*
  - *Sage Days 78: Combinatorics, Vancouver, BC, Canada (June 2016)*
- Became first masters student to present in discrete seminar. Topic: "Coxeter groups and noncrossing partition graphs".

## Posters

- *The facial weak order in finite Coxeter groups*
  - *Journées Nationales 2018 du GDR Informatique Mathématique, Paris, France (April 2018)*

## Conferences participated in without giving a talk

- CRM 50th anniversary - Algebra and Combinatorics at LACIM, Montréal, QC, Canada (September 2018)
- SageDays at ICERM, Providence, RI, USA (July 2018)
- FPSAC 2018, Hanover, NH, USA (July 2018) \$550 travel scholarship awarded by the NSF
- 6th Encuentro Colombiano de Combinatoria, Barranquilla, Colombian (June 2018)
- Séminaire Lotharingien de Combinatoire, Lyon, France (May 2018)
- Cluster Algebras: Twenty Years On, Marseille, France (March 2018)
- Journées de combinatoire de Bordeaux 2018, Bordeaux, France (February 2018)
- FPSAC 2017, London, UK (July 2017) \$900 travel scholarship awarded by the NSF
- Sage Days 86: Algebra and Words in Combinatorics, Montréal, QC, Canada (April 2017)
- 2016 CMS Winter Meeting, Niagara, ON, Canada (December 2016)
- 2015 CMS Winter Meeting, Montréal, QC, Canada (December 2015)
- Sage Days 64.5: Cluster Algebras, Minneapolis, MN, USA (June 2015)
- 66th British Mathematical Colloquium, London, UK (April 2014)
- Non-crossing partitions in representation theory workshop, Bielefeld, Germany (June 2014)

## Community Services

- Co-organizer of the student research session at the 2017 CMS Winter Meeting. (December 2017)
- Co-organizer of the student research session at the 2017 Mathematical Congress of the Americas. (July 2017)
- Co-chair of the Canadian Mathematical Society Student Committee. (2016 - 2018)
- Organiser of the Postgraduate student seminar in mathematics at UQAM. (2015 - 2017)
- Organiser of the summer mathematics seminar at UQAM. (2015 - 2017)
- Representative in the postgraduate program committee for mathematics at UQAM. (2015 - 2017)
- Treasurer for the postgraduate students in mathematics association at UQAM. (2015 - 2016)
- Volunteer for the environmental committee of the science student association at UQAM. (2015 - present)
- Represented the pure mathematics students as a representative on the postgrad student staff liaison board at the University of Manchester.
- Choreographed and participated in a modern dance routine for Dance Expose society for their annual show.

## Personal Interests

Dance Outside of math I'm a semi-professional dancer of contemporary, voguing, waacking and heels. I have performed as a principal dancer of the group Bollywood Blast during Montréal Pride 2017 and 2018.