

ALI ALILOOEE

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EDUCATION

Dalhousie University, Halifax, Nova Scotia

- Ph.D., Mathematics, Summer 2015
 - Dissertation Topic: “Algebraic Properties of Squarefree Monomial Ideals”
 - Advisor: Sara Faridi

Amirkabir University, Tehran, Iran

- M.A., Mathematics, September 2004
 - Dissertation Topic: “The Covers on Noetherian Modules”
 - Advisor: Farhad Rahmati
- B.A., Mathematics, June 2001

RESEARCH

Research Interests:

- Commutative Algebra, Combinatorics, Algebraic Geometry.

POSITION HELD

Program Associate

- Mathematics Science Research Institute, Berkeley, CA, August-December 2012.

HONORS AND AWARDS

- **Killam Predoctoral Scholarship**, Dalhousie University, 2013-2015.
- **Atlantic Algebra Center**, Annual Graduate Prize, Second place, November 2012.
- **Atlantic Algebra Center**, Annual Graduate Prize, Third place, November 2011.
- **Top ranking student in PhD entrance competition**, Amirkabir University, Iran, 2008.
- **Top Ranking Student in Master’s program**, Amirkabir University, Iran, 2002.

PUBLICATIONS

- A. Alilooee, S. Faridi, On the resolution of path ideals of cycles, Accepted for Publication in Communications in Algebra, 2013.
- A. Alilooee, S. Faridi, Graded Betti numbers of path ideals of cycles and lines, In Submission, 2013.
- A. Alilooee, S. Faridi, When is a Squarefree Monomial Ideal of Linear Type? Accepted for Publication in Commutative Algebra and Noncommutative Algebraic Geometry and Representation Theory, 2014.
- A. Alilooee, A. Banerjee, Powers of edge ideals of regularity three bipartite graphs. In Submission, 2014.

- A. Alilooee, J. Validashti, j -multiplicity of edge ideals. In Progress, 2015.
- A. Alilooee, A. Banerjee, H. T. Há, Asymptotic behavior of regularity of edge ideals of bipartite graphs. In Progress, 2015.

TEACHING EXPERIENCE

Graduate Teaching Assistant

- MATH 1290, Engineering Math II, Dalhousie University, Winter 2015.
- MATH 1280, Engineering Math I, Dalhousie University, Winter 2012.
- Math Learning Center, January 2011-April 2013.

Instructor

- MATH 1290, Engineering Math II, Dalhousie University, Summer 2014.
- Algebra and Probability, Koswar high school, 2006-2010.
- Complex Analysis, Amirkabir University, Fall 2009.
- Geometry, high school, 2007-2008.
- Differential Equations, Azad Abhar University, Winter 2007.
- Calculus I, Calculus II, Azad Abhar University, Fall 2006.
- Statistic and Probability, Azad Ghazvin University, Fall 2006.
- Calculus I, Azad Ghazvin University, Fall 2006.
- Statistic and Probability, Elmi Karbordi Tehran, Fall 2003, Winter 2004.

CONFERENCE PRESENTATIONS

- **Combinatorial Algebra meets Algebraic Combinatorics**, Queen's University, Kingston, Ontario, January 23-25, 2015, *talk: j -multiplicity of edge ideals.*
- **CMS Winter Meeting**. Special Session on Commutative Algebra: Interactions with Algebraic Combinatorics, Algebraic Geometry, and Representation Theory, Hamilton, ON, December 5-8, 2014, *talk: When is a squarefree monomial ideal of linear type ?*
- **Fall Eastern Sectional Meeting**. Special Session on Commutative Algebra and Its Interactions with Algebraic Geometry, Dalhousie University, Halifax, Canada, October 18-19, 2014, *talk: Powers of edge ideals of regularity three bipartite graphs.*
- **CMS Summer Meeting**. Special Session on Commutative Algebra and Combinatorics, Dalhousie University/Saint Mary's University, Halifax, NS, June 2013, *talk: Rees algebra of squarefree monomial ideals.*
- **Grad Students Talks**. MSRI, Berkeley, CA, November 2012, *talk: Rees algebra of square-free monomial ideals.*
- **15 minutes talks**. MSRI, Berkeley, CA, September 2012, *talk: Cycles in higher dimension.*

- **Combinatorial Algebra meets Algebraic Combinatorics.** Ninth Annual Meeting, Université du Québec à Montréal, Montreal, QC, January 2012, *talk: The graded Betti numbers of the path ideal of a cycle.*
- **MONomial Ideals, Computations and Applications.** CIEM, Castro Urdiales (Cantabria), Spain, July 2011, *talk: Betti numbers of path ideal of a cycle.*
- **CMS Winter Meeting.** Special Session on Commutative Algebra and Combinatorics, University of British Columbia, Vancouver, BC , December 2010, *talk: The graded Betti numbers of the path ideal of a cycle.*

CONFERENCES AND WORKSHOPS ATTENDED

- **2014 AARMS Summer School**, Dalhousie University, Halifax, NS, July 21-Aug 15, 2014.
- **Stanley@70**, Massachusetts institute of technology, Cambridge, MA, June 23-27, 2014
- **11th Annual Meeting of Combinatorial Algebra meets Algebraic Combinatorics**, Dalhousie University, Halifax, NS, January 24 - 26, 2014.
- **AMS Special Session on Homological and Characteristic p Methods in Commutative Algebra**, 2014 Joint Mathematics Meeting, Baltimore, MD, January 16-17, 2014.
- **International Workshop in Combinatorial Algebra**, Dalhousie University/Saint Mary's University, Halifax, NS, June 1-4, 2013.
- **10th Annual Meeting of Combinatorial Algebra meets Algebraic Combinatorics**, Fields Institute, Toronto, ON, January 25-27, 2013.
- **Combinatorial Commutative Algebra and Applications**, MSRI, Berkeley, CA, December 3-7, 2012.
- **Joint Introductory Workshop: Cluster Algebras and Commutative Algebra**, MSRI, Berkeley, CA, August 27, 2012 - September 7, 2012.
- **Commutative Algebra and Its Interactions with Algebraic Geometry, Representation Theory, and Physics**, CIMAT, Guanajuato, Mexico, May 14 - 25, 2012
- **Workshop on Connections Between Algebra and Geometry**, University of Regina, Regina, SK, May 29 - June 1, 2012.
- **CMS Summer Meeting**, Special Session on Interactions Between Algebraic Geometry and Commutative Algebra, University of Regina, Regina, SK , June 2-4, 2012.
- **Combinatorial Algebra meets Algebraic Combinatorics**, Eighth Annual Meeting, Lakehead University, Thunder Bay, ON, January 2011.
- **The First Seminar on Combinatorial Commutative Algebra**, IPM, Tehran, Iran, February 2010.
- **The First Conference on Algebraic Combinatorics**, Tabriz University , Tabriz, Iran, November 2009.

PROFESSIONAL MEMBERSHIPS

American Mathematical Society
Canadian Mathematical Society

REFERENCES

Sara Faridi, Dalhousie University, faridi@mathstat.dal.ca

Huy Tái Há, Tulane University, tai@math.tulane.edu

Hailong Dao, University of Kansas, hdao@math.ku.edu

Dorette Pronk, Dalhousie University, pronk@mathstat.dal.ca

Karl Dilcher, Dalhousie University, dilcher@mathstat.dal.ca (teaching)

Pierre Stevens , Dalhousie University, learnc@mathstat.dal.ca (teaching)