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| CONTACT INFORMATION | My name in passport: Amirhossein Sadeghi Manesh Email: a.h.sadeghimanesh@gmail.com , amir@math.ku.dk Phone number: +45 5037 5143, +66 6 1831 7324, +98 910 258 8099 Address: Department of Mathematical Sciences, Universitetsparken 5, Copenhagen, 2100, Office no. 4.3.06, AmirHosein Sadeghimanesh Personal homepage: https://amirhosein.yolasite.com/ LinkedIn: https://www.linkedin.com/in/amirhosein-sadeghimanesh-1b5065181/ | |
| PERSONAL DATA | Birth Date: May 29, 1991. | Marital Status: Married. |
| | Country of Citizenship: Iran. | Number of Children: 0. |
| RESEARCH INTERESTS | Applied and Computational Algebraic Geometry, Mathematical Biology. | |
| EDUCATION AND EMPLOYMENT | 2019 May - present | Postdoc in Mathematics of Chemical Reaction Networks , University of Copenhagen, Copenhagen, Denmark Supervisor: Elisenda Feliu |
| | 2018 Sep.-2018 Oct. | |
| | 2015 Sep.-2018 Aug. | Ph.D. in Applied Algebraic Geometry in Biology , University of Copenhagen, Copenhagen, Denmark Title of Thesis: Algebraic tools in the study of Multistationarity of Chemical Reaction Networks Supervisor: Elisenda Feliu |
| | 2012 Sep.-2014 Sep. | M.Sc. in Pure Mathematics Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran Title of Thesis: Resolution of Singularities and Hironaka's Theorem Supervisor: Abbas Nasrollah-Nejad |
| | 2008 Sep.-2012 Jun. | B.Sc. in Pure Mathematics University of Qom, Qom, Iran |
| PUBLICATIONS | <ol style="list-style-type: none"> 1. A. H. Sadeghimanesh and E. Feliu. Gröobner bases of reaction networks with intermediate species, <i>Advances in Applied Mathematics</i>, Volume 107, June 2019, Pages 74-101, https://doi.org/10.1016/j.aam.2019.02.006 (arXiv:1804.01381[cs.SC], 2018). 2. A. H. Sadeghimanesh and E. Feliu. The multistationarity structure of networks with intermediates and a binomial core network, <i>Bulletin of Mathematical Biology</i>, 2019, https://doi.org/10.1007/s11538-019-00612-1 (arXiv:1808.07548[q-bio.MN], 2018). | |

3. A. H. Sadeghimanesh and E. Feliu. The robustness of parameter regions for multistationarity, 2018, **in preparation** (Preliminary version in my thesis).

VISITS • PhD mandatory change of environment, Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany, June 19, 2017 - September 16, 2017

AWARDS **Mathematical Competitions of School Students**
 • 3rd position in Matheamathical Olympiad at Qom province for Middle School students 2002.
 • 3rd position in Matheamathical Olympiad at Qom province for Middle School students 2003.

Mathematical Competitions of University Students
 • 12th position in 12th International Scientific Olympiad on Mathematics (held in Tarbiat Modares University, Tehran, Iran), July 12-15, 2011.
 • **Silver medal** in 36th Iranian Mathematical Competition for University students, May 2012.
 • 24th position in National Entrance Exam of Mathematics for Studying M.Sc., 2012.
 • 12th position in National Entrance Exam of Mathematics for Studying Ph.D., 2013.
 • 14th position in National Entrance Exam of Mathematics for Studying Ph.D., 2014.

Student Awards
 • 1st among 33 math students of the same entrance year in his M.Sc. education with average score 19.57 of 20, IASBS, Zanjan, Iran.
 • 1st among 42 math students of the same entrance year in his B.Sc. education with average score 17.60 of 20, University of Qom, Qom, Iran.

TEACHING Block 1, 2019-20, University of Copenhagen, Copenhagen, Denmark
 EXPERIENCE • Teaching assistant of Solving Polynomial Equations **Upcoming**

..... Block 4, 2016-17, University of Copenhagen, Copenhagen, Denmark
 • Teaching assistant of Computational Algebraic Geometry

..... Winter 2014, IASBS, Zanjan, Iran
 • Teaching assistant of Advanced Algebra 2
 • Teaching assistant of Algebraic Geometry 1

..... Spring 2013, IASBS, Zanjan, Iran
 • Teaching assistant of Algebraic Geometry 1
 • Teaching assistant of Commutative Algebra 1

..... Fall 2012, IASBS, Zanjan, Iran
 • Teaching assistant of Real Analysis 1

..... Second semester, 2011-12, University of Qom, Qom, Iran
 • Teaching assistant of General Mathematics 3
 • Teaching assistant of Graph Theory

PRESENTATIONS • *Expected number of positive real solutions to systems of polynomial equations arising from reaction networks*, SIAM AG 2019, Bern, Swiss, July 12, 2019.
 • *Intermediates, binomiality and multistationarity*, ECMTB2018, Lisbon, Portugal, July 23, 2018.

- *Expected number of positive solutions to a system of polynomial equations with random coefficients*, University of Copenhagen (SPT lunch talk), Copenhagen, Denmark, March 5, 2018.
- *Gröbner bases in Chemical Reaction Networks*, Sabanci University (Mathematics Colloquium), Istanbul, Turkey, February 15, 2018.
- *Mathematics of Chemical Reaction Networks*, IASBS, Zanjan, Iran, November 5, 2017.
- *Intermediates, Binomiality and Multistationarity*, University of Copenhagen (SPT lunch talk), Copenhagen, Denmark, May 29, 2017.
- *Graph Coloring*, University of Copenhagen (IUP), Copenhagen, Denmark, September 9, 2016.
- *Binomiality in Reaction Networks*, University of Copenhagen, Copenhagen, Denmark, May 12, 2016.
- *5 Questions about Applied Algebraic Geometry in Reaction Networks in 10 minutes*, University of Copenhagen, Copenhagen, Denmark, February 11, 2016.
- *A View Of Algebraic Geometry on non-zero characteristic fields in 20 minutes*, IASBS, Zanjan, Iran, May 25, 2014.
- *An Introduction to “Robotics and Algebraic Geometry” in 20 minutes*, IASBS, Zanjan, Iran, November 12, 2013.
- *Cluster Structure of Grassmannians*, IASBS, Zanjan, Iran, April 29, May 6, May 13, 2013.

POSTER
PRESENTATION

- *Intermediates, binomiality and multistationarity* at MaCKiE2017, Budapest, Hungary, May 25-27, 2017.
- *Intermediates, binomiality and multistationarity* at CompSysBio2017, Aussois, France, March 19-25, 2017.

SCHOOLS AND
WORKSHOPS

- SIAM Conference on Applied Algebraic Geometry (AG19), Bern, Swiss, July 9-13, 2019.
- Advances in Chemical Reaction Network Theory, Erwin Schroedinger Institute (ESI), Vienna, Austria, October 15-19, 2018.
- 11th European Conference on Mathematical and Theoretical Biology, ECMTB2018, Lisbon, Portugal, July 23—27, 2018.
- 40th Autumn School in Algebraic Geometry, Binomial Ideals, Lukecin, Poland, September 3-9, 2017.
- Foundations of Computational Mathematics, FoCM2017, Workshop on Computational Algebraic Geometry, Barcelona, Spain, July 10-12, 2017.
- Reading Group on Real Algebraic Geometry, Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany, July 3-7, 2017.
- MaCKiE International Conference on Mathematics in (bio)Chemical Kinetics and Engineering, Budapest, Hungary, May 25-27, 2017.
- Advance Lectures in Computational Systems Biology, CompSysBio2017, Aussois, France, March 19-25, 2017.
- Commutative Algebra and Algebraic Geometry, Tehran, School of Mathematics, IPM, Tehran, Iran, September 7 - 10, 2014.
- Algebraic Geometry and Number Theory, Istanbul (CIMPA school and workshop), Turkey, June 2 - 13, 2014.
- Geometry and Topology of Singular Varieties. Theory and Applications, Hanoi (CIMPA school and workshop), Vietnam, December 2 - 14, 2013.

SERVICE

- Head of Mathematical Society of Students of University of Qom, October 2010 – September 2012.
- EditorChief of the Mathematical Journal of “Mathematical Society of University of Qom”, 2012.

PROGRAMMING
SKILLS

- Maple.
- Python 3.7.
- C++11.
- Julia 1.1.1.
- VBA. Excel.

REFERENCES

Elisenda Feliu
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Department of Mathematics
University of Copenhagen
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Department of Mathematics,
Institute for Advanced Studies in Basic Sciences
Zanjan, Iran