Sepehr Hajebi

Curriculum Vitæ (May 27, 2024)

Contact

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Education

- PhD in Mathematics (Fall 2020 – present)
  Combinatorics and Optimization, University of Waterloo
  Thesis: *Foreshadowing the Grid Theorem for Induced Subgraphs*
  Advisor: Sophie Spirkl

- BSc and MSc in Mathematics (Fall 2012 – Spring 2019)
  Isfahan University of Technology, Isfahan, Iran

Awards

7. Sinclair Graduate Scholarship (2023 and 2024)
   Combinatorics and Optimization, University of Waterloo

6. Outstanding TA Recognition (2022)
   Combinatorics and Optimization, University of Waterloo

5. Invited visitor to KMS, KIAS and NIMS (2016)
   Funded by The Embassy of South Korea in Iran

4. Korean Mathematical Society Contest for University Students (2016)
   Seoul, South Korea – Third Prize

3. International Mathematics Competition for University Students (2015 and 2016)
   Blagoevgrad, Bulgaria – Third Prizes

2. Iranian Math Society Competition for University Students (2015 and 2016)
   Second and Third Prizes

1. Elite Student Award (2016 and 2018)
   Isfahan University of Technology

Talks

8. *Survey on induced subgraphs of graphs with large treewidth*
   Barbados Graph Theory Workshop, Bellairs Research Institute (2024)

7. *Treewidth, Erdős-Pósa and induced subgraphs* [virtual]
   New York Combinatorics Seminar (2024)

6. *Several Gyárfás-Sumner-type results for treewidth*
   Graphs and Matroids Seminar, University of Waterloo (2023)

5. *Hitting all maximum stable sets in P_5-free graphs*
   Graphs and Matroids Seminar, University of Waterloo (2023)

4. *Forests in even-hole-free graphs of large treewidth*
   Barbados Graph Theory Workshop, Bellairs Research Institute (2022)

3. *Holes, hubs, and bounded treewidth* [virtual]
   IBS Virtual Discrete Math Colloquium, Daejeon, South Korea (2022)

2. *Bounded treewidth in hereditary graph classes*
   Graphs and Matroids Seminar, University of Waterloo (2022)

1. *Bounded treewidth in hereditary graph classes*
   Seymour was 70 two years ago, ENS de Lyon, France (2022)

MENTORSHIP

University of Waterloo:

- Directed Reading Program (DRP) by the Women in Math (WiM) committee
  - Spring 2024 project: *Non-constructive methods in combinatorics*
    Mentees: Anna Henderson and Gioia De Leonardis
  - Fall 2023 project: *Introduction to graph minor theory*
    Mentees: Xinyue Fan and Lyncy Li
- Undergraduate Research Assistant Program (URA)
  - Spring 2023 project: *Maximum transitive set in H-free tournaments*
    Mentee: Yun Xing

TEACHING

TA at University of Waterloo:

10. CO342 Graph Theory (Spring 2023)

9. MATH138 Calculus II for honors of mathematics (Winter 2023)

8. MATH600 Mathematical software (Fall 2022)

7. CO456 Game theory (Fall 2022 and 2023)

6. CO380 Mathematical discovery and invention (Spring 2022)

5. MATH239 Introduction to combinatorics (Winter 2022)

4. CO255 Advanced optimization (Winter 2022)

3. CO250 Introduction to optimization (Fall 2021 and 2023; Winter 2023 and 2024;
   Spring 2024)

2. CO450/650 Graph theory (graduate) (Fall 2021)

1. CO351 Network-flow theory (Spring 2021)

TA at Isfahan University of Technology:

6. Computational complexity (graduate) (2019)

5. Elements of matrices and linear algebra (2018)

4. Applied Linear algebra (for engineering) (2018)

3. Graph theory (2016)

2. Graph theory (graduate) (2014, 2017)

1. Elements of combinatorics (2014, 2016, 2017)

<u>SERVICE</u>

Refereeing for journals and conference proceedings:

7. International Mathematics Research Notices

6. Journal of Combinatorial Theory, Series B

5. European Journal of Combinatorics

4. Journal of Graph Theory

3. Electronic Journal of Combinatorics

2. European Conference on Combinatorics, Graph Theory and Applications

1. Workshop on Graphs