Kaveh Dastouri

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Education

PhD — Tarbiat Modares University, Tehran, Iran — 2020 – 2023
Field: Algebra
Thesis: "Monomial characters and structure of finite groups"
Supervisor: Prof. Ali Iranmanesh
Advisor: Prof. Mohsen Ghasemi

MS — University of Tabriz, Tabriz, Iran — 2017 – 2020
Field: Algebra
Thesis: "Irreducible characters of even degree and normal Sylow 2-subgroups"
Supervisor: Prof. Kamal Aziziheris

BS — Farhangian University, Iran — 2013 – 2017
Field: Mathematics Education

Research Experience

Research Stay — RPTU Kaiserslautern-Landau, Germany — Jul 2026 – Dec 2026
Host: Prof. Günter Malle.

Postdoc — Beijing International Center for Mathematical Research (BICMR), Peking University — Dec 2025 – present
Supervisor: Prof. Jiping Zhang

Postdoc — Department of Pure Mathematics, Tarbiat Modares University — Jun 2024 – Sep 2025
Supervisor: Prof. Ali Iranmanesh

Honors and Awards

DAAD Research Grant (German Academic Exchange Service) — 2026
Competitive research scholarship for a six-month research in Germany.

Highest GPA among PhD Students — 2024
Highest grade point average among algebra PhD students at Tarbiat Modares University.

Qualified as an "Exceptional Talent" PhD Student — 2020
Exempt from the entrance exam, Tarbiat Modares University.

Publications

Journal Papers

[1] Kaveh Dastouri. *Symmetric Group-Based Public-Key Cryptosystem with Large Prime Moduli*. Cryptology ePrint Archive, Paper 2025/1589. 2025. URL: https://eprint.iacr.org/2025/1589.

[2] Kaveh Dastouri and Mohsen Ghasemi. "Groups with prime power Isaacs π-partial character codegrees." (Journal of Algebra and Its Applications). 2025. URL: https://doi.org/10.1142/S0219498827500897.

[3] Kaveh Dastouri and Ali Iranmanesh. "Primes and degrees of Isaacs π-partial characters." In: *Communications in Algebra* 53.6 (2025), pp. 2523–2527. DOI: 10.1080/00927872.2024.2446543. eprint: https://doi.org/10.1080/00927872.2024.2446543. URL: https://doi.org/10.1080/00927872.2024.2446543.

[4] Kaveh Dastouri, Ali Iranmanesh, and Mohsen Ghasemi. "Monomial Isaacs π-partial characters and derived length." In: *Journal of Algebra and Its Applications* 24.04 (2025), p. 2550108. DOI: 10.1142/S0219498825501087. eprint: https://doi.org/10.1142/S0219498825501087. URL: https://doi.org/10.1142/S0219498825501087.

[5] Kaveh Dastouri, Ali Iranmanesh, and Mohsen Ghasemi. "Primes and Degrees of Isaacs π-partial Character II." (Submitted). 2025.

Preprints

1. K. Dastouri, "A Symmetric Group-Based Public-Key Cryptosystem with Hard-to-Factor One-Way Function," (submitted).

Conference Presentations or Papers

1. K. Dastouri, A. Molkhasi, "Pseudocomplements in free groups", The 4th Seminar on Algebra and its Applications, August 9-11, 2016.
2. K. Dastouri, A. Iranmanesh, "Primes and degrees of Isaacs π-partial character", 15th International Group Theory Conference of Iran, February 9-10, 2023.
3. K. Dastouri, A. Iranmanesh, "Some results of Isaacs π-partial character degrees", 4th International Conference on Computational Algebra, Computational Number Theory and Applications, July 4-6, 2023.
4. K. Dastouri, A. Iranmanesh, "On monomial Isaacs π-partial characters of π-separable groups", 7th Biennial International Group Theory Conference, August 7-11, 2023.
5. K. Dastouri, A. Iranmanesh, M. Ghasemi, "Groups whose all Isaacs π-partial characters are monomial", 16th International Group Theory Conference of Iran, February 1-2, 2024.
6. K. Dastouri, A. Iranmanesh, "Representation theory of symmetric groups and some combinatorial results", 12th Graph Theory and Algebraic Combinatorics, February 7-8, 2024.
7. K. Dastouri, A. Iranmanesh, "برخی نتایج در مورد نتایج درجات سرشت هاي مونولتیک", 55th Annual Iranian Mathematics Conference, August 14-16, 2024.
8. A. Iranmanesh, K. Dastouri, "π-structure and π-characters", 17th International Group Theory Conference of Iran, January 29-30, 2025.
9. K. Dastouri, "π-Theory of Finite Groups in GAP," GAP Days - Spring 2026, University of Porto, Portugal, 4th–8th May 2026.

Research Interests

Representation Theory of Finite Groups: ordinary and modular cases
Finite Groups and Their Applications
Public-Key Cryptosystem Design: leveraging hard computational representation problems

Teaching Experience

Teaching Assistant	Tarbiat Modares University, Tehran, Iran *Courses:* Representation Theory of Finite Groups, Abstract Algebra Lecturer: Prof. Ali Iranmanesh	2020 – 2024
High School Teacher	Various High Schools, Iran Mathematics instructor for 7 years	2013 – 2020

Computer Skills

GAP	Advanced
SageMath	Intermediate
Python (NumPy, TensorFlow, Keras)	Familiar
LaTeX	Advanced
Microsoft Office	Advanced
Linux	Familiar

Languages

Persian	Native
English	Upper Intermediate (C1)
German	Basic (A1)

References

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Prof. Jiping Zhang
School of Mathematical Sciences, Peking University, China
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Prof. Mohammad Reza Darafsheh
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Dr. Ali Rajaei
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