

# Alireza Kaviani

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Sharif University of Technology, Tehran, Iran

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## Education

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**Sharif University of Technology** Expected Graduation: 2027  
Bachelor of Science in Computer Engineering

**Allame Helli High School** 2019 – 2022  
Focus on Informatics Olympiad

## Research Experience

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**Tehran Institute for Advanced Studies (TeIAS)** Jan 2023 – Present  
Advisor: Prof. Masoud Seddighin

**University of Maryland** June 2024 – Present  
Advisor: Prof. MohammadTaghi Hajiaghayi

**Max Planck Institute for Informatics (MPI-INF)** July 2025 – Present  
Advisor: Prof. Danupon Nanongkai

## Publications

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- [1] Ehsan Heidari, Alireza Kaviani, Masoud Seddighin, and AmirMohammad Shahrezaei. "Improved Maximin Share Guarantee for Additive Valuations." In Proceedings of the 37th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA), 2026. [arxiv.org/abs/2510.10423](https://arxiv.org/abs/2510.10423)
- [2] Alireza Kaviani, Alireza Keshavarz, Masoud Seddighin, and AmirMohammad Shahrezaei. "Improved Approximate EFX Guarantees for Multigraphs." In Proceedings of the 21st Conference on Web and Internet Economics (WINE), 2025. [arxiv.org/abs/2506.09288](https://arxiv.org/abs/2506.09288)
- [3] Alireza Kaviani, Masoud Seddighin, and AmirMohammad Shahrezaei. "Almost Envy-Free Allocation of Indivisible Goods: A Tale of Two Valuations." In Proceedings of the 20th Conference on Web and Internet Economics (WINE), 2024. [arxiv.org/abs/2407.05139](https://arxiv.org/abs/2407.05139)

## Honors & Awards

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- **International Olympiad in Informatics (IOI)**: Gold Medal (Rank 12, 2022), Silver Medal (2021)
- **Iran National Olympiad in Informatics (INOI)**: Gold Medal (2020)
- **ICPC West Asia Regionals**: Gold Medal (2022, 2023, 2024)
- **Codeforces**: First Iranian Legendary Grandmaster (Peak Rating: 3012)

## Teaching Experience

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**Allame Helli High School**

2022 – Present

Head of Informatics Olympiad Department. Many students won IOI and INOI medals.

## Skills

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**Programming Languages:** C++, Python

**Tools and Technologies:** L<sup>A</sup>T<sub>E</sub>X, Git

**Languages:** Fluent in Persian (Native), English (Professional Proficiency)

## Research Interests

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- Algorithmic Game Theory
- Graph Algorithms
- Complexity Theory