

Ali Gholami Rudi — Curriculum Vitae

Contact Information

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Research Interests

- Computational geometry
- Combinatorial algorithms
- Parallel processing

Academic Positions

- Assistant Professor, Department of Electrical and Computer Engineering, Babol Noshirvani University of Technology (2015—now)

Education

- Tarbiat Modares University, Tehran; PhD in Computer Engineering (2011—2015)
- Tarbiat Modares University, Tehran; MSc in Computer Engineering (2008—2010)
- Sharif University of Technology, Tehran; BSc in Computer Engineering (2004—2008)

Honours and Awards

- Gold Medal in 13th Iranian National Olympiad in Informatics (2003)

Publications

- Maximizing the Number of Visible Labels on a Rotating Map. *Scientific Annals of Computer Science*, 31(2):293–313, 2021. [\[Link\]](#)
- Place the Vertices Anywhere on the Curve and Simplify. *Fundamenta Informaticae*, 180(3):275–287, 2021. [\[Link\]](#)
- Approximate Curve-Restricted Simplification of Polygonal Curves. *International Journal of Computer Mathematics: Computer Systems Theory*, 6(2):178–187, 2021. [\[Link\]](#)
- Where Were the Birds Staying, Last Week? *New Mathematics and Natural Computation*, 16(3):581–592, 2020. [\[Link\]](#)
- Approximate Discontinuous Trajectory Hotspots. *Open Computer Science*, 10(1):444–449, 2020. [\[Link\]](#)
- Identifying and Querying Regularly Visited Places. *Scientific Annals of Computer Science*, 29(2):185–201, 2019. [\[Link\]](#)
- Succinct Enumeration of Distant Vertex Pairs. *Discrete Mathematics, Algorithms and Applications*, 11(06):1950076, 2019. [\[Link\]](#)

- Enumerating Collinear Points in Higher Dimensions (with R. A. Rufai). *Scientific Annals of Computer Science*, 29(1):81–100, 2019. [\[Link\]](#)
- Approximate Hotspots of Orthogonal Trajectories. *Fundamenta Informaticae*, 167(4):271–285, 2019. [\[Link\]](#)
- An Improved Lower Bound for General Position Subset Selection. *Int. J. Computing Science and Mathematics* 8(6):562–569, 2017. [\[Link\]](#)
- Image Preprocessing with a Parallel Optoelectronic Processor (with S. Jalili). *Computers & Electrical Engineering* 46:554–565, 2015. [\[Link\]](#)
- RANGI: A Fast List-Colored Graph Motif Finding Algorithm (with S. Shahrivari, S. Jalili, and Z. R. M. Kashani). *ACM/IEEE Transactions on Computational Biology and Bioinformatics* 10(2):504–513, 2013. [\[Link\]](#)
- A Parallel Optical Implementation of Arithmetic Operations (with S. Jalili). *Optics & Laser Technology* 49:173–182, 2013. [\[Link\]](#)
- A New Light-Based Solution to the Hamiltonian Path Problem (with J. S. Sartakhti, and S. Jalili). *Future Generation Computer Systems* 29:520–527, 2013. [\[Link\]](#)

Conference Presentations

- Never Absent for Long and Never Far Away. (with F. Golchin). *Proceedings of the 3rd Iranian Conference on Computational Geometry*, 2020.
- Approximate Curve-Restricted Simplification of Polygonal Curves. *Proceedings of the 2nd Iranian Conference on Computational Geometry*, 2019.
- Approximate Discontinuous Trajectory Hotspots. *Proceedings of the 2nd Iranian Conference on Computational Geometry*, 2019.
- Looking for Bird Nests: Identifying Stay Points with Bounded Gaps. *Proceedings of the 30th Canadian Conference on Computational Geometry*, 334–339, 2018.
- Approximate Hotspots of Orthogonal Trajectories. *Proceedings of the 1st Iranian Conference on Computational Geometry*, 37–40, 2018.
- Time-Windowed Contiguous Hotspot Queries. *Proceedings of the 1st Iranian Conference on Computational Geometry*, 15–18, 2018.

Patents

- IROST Patent: Electro-optic Parallel Processor (with S. Jalili, and R. R. Dehsorkh). Iranian Research Organization for Science and Technology, 2017. [\[Link\]](#)