

Hessameddin Akhlaghpour

last updated: March 2023

Tel: (650) 200 - 3045
Email: hessam@rockefeller.edu
Website: www.akhlaghpour.info

EDUCATION & RESEARCH POSITIONS:

- | | |
|-----------------------------|--|
| Sep 2017 - current | Postdoctoral Fellow, Rockefeller University <i>Advisor: Prof. Gaby Maimon</i> |
| Sep 2011 - June 2017 | Ph.D. in Neuroscience, Princeton University <i>Advisor: Prof. Ilana B. Witten</i> |
| Sep 2007 - Aug 2011 | B.Sc. in Computer Engineering, Sharif University of Technology |

PUBLICATIONS:

- Vijayan, Vikram, Zikun Wang, Vikram Chandra, Arun Chakravorty, Rufe Li, Stephanie L. Sarbanes, [Hessameddin Akhlaghpour](#), and Gaby Maimon. "An internal expectation guides *Drosophila* egg-laying decisions." *Science advances* 8.43 (2022): eabn3852.
- [Hessameddin Akhlaghpour](#). "An RNA-based theory of natural universal computation." *Journal of theoretical biology* 537 (2022): 110984.
- Vikram Vijayan, Fei Wang, Kaiyu Wang, Arun Chakravorty, Atsuko Adachi, [Hessameddin Akhlaghpour](#), Barry J. Dickson, and Gaby Maimon. "A rise-to-threshold signal for a relative value deliberation." *bioRxiv* (2021). in revision at *Nature*.
- [Hessameddin Akhlaghpour](#), Joost Wiskerke, Jung Yoon Choi, Joshua P Taliaferro, Jennifer Au, and Ilana B. Witten. "Dissociated sequential activity and stimulus encoding in the dorsomedial striatum during spatial working memory." *eLife* 5 (2016): e19507
- Burrows, Brittany E., Marc Zirnsak, [Hessameddin Akhlaghpour](#), Megan Wang, and Tirin Moore. "Global Selection of Saccadic Target Features by Neurons in Area V4." *The Journal of Neuroscience* 34, no. 19 (2014): 6700-6706.
- [Hessameddin Akhlaghpour](#), Mohammad Ghodsi, Nima Haghpanah, Vahab S. Mirrokni, Hamid Mahini, and Afshin Nikzad. "Optimal iterative pricing over social networks." In *Internet and Network Economics*, pp. 415-423. Springer Berlin Heidelberg, 2010.

AWARDS & FELLOWSHIPS:

- | | |
|-----------------|---|
| Apr 2019 | Kavli Postdoctoral Fellowship , 2019-2021 |
| Jun 2017 | Harvey L. Karp Postdoctoral Fellowship at The Rockefeller University, 2017-2019 |
| Apr 2011 | National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) |
| Nov 2009 | Second Place team in Asia Regional Contest, ACM ICPC, West Asia Site, Tehran, Iran |
| Dec 2008 | Third Place team in Asia Regional Contest, ACM ICPC, West Asia Site, Tehran, Iran |
| Aug 2007 | Silver Medal in International Olympiad in Informatics (IOI), Zagreb, Croatia |
| Aug 2006 | Bronze Medal in International Olympiad in Informatics (IOI), Merida, Mexico |

POSTER PRESENTATIONS:

- [Hessameddin Akhlaghpour](#), Jazz Weisman, Gaby Maimon. "**Accurate Engagement of the *Drosophila* Central-Complex Compass During Head-Fixed Path-Constrained Navigation**". Computational and

Systems Neuroscience (Cosyne) 2022

- [Hessameddin Akhlaghpour](#), Joshua P Taliaferro, Jung Yoon Choi, Jennifer Au, and Ilana B. Witten. **“Inactivation of the dorsomedial striatum leads to impairment in spatial working memory.”** Society for Neuroscience Abstracts, 2016
- [Hessameddin Akhlaghpour](#), Joost Wiskerke, Jung Yoon Choi, Jennifer Au, and Ilana B. Witten. **“The role of the dorsomedial striatum in spatial working memory.”** Society for Neuroscience Abstracts, 2015
- [Hessameddin Akhlaghpour](#), Joost Wiskerke, Jung Yoon Choi, Jennifer Au, and Ilana B. Witten. **“Investigating the role of the striatum in working memory.”** Computational and Systems Neuroscience (Cosyne) 2015

TEACHING & ORGANIZING EXPERIENCE:

- Volunteer at the Prison Teaching Initiative (PTI), 2015-2018
- Teaching Assistant at Princeton University
 - Cellular and Systems Neuroscience, Fall 2012
 - Computational Neuroscience and Computing Networks, Spring 2013
- Teaching Assistant at Sharif University of Technology
 - Formal Languages and Automata Theory, Fall 2010
 - The Fundamentals of Computer Programming, Fall 2010
- Teaching at Iranian National Olympiad of Informatics (INOI) Boot Camps, 2008 - 2010
- Co-Director of the Helli-Net high school programming competition, Nov 2008
- Co-Director of the first Iranian national high school ACM competition with over seventy participating high schools across Iran, Dec 2008
- Problem Set Designer of the Iranian National Olympiad in Informatics (INOI) finals, Feb 2008

ADDITIONAL RESEARCH EXPERIENCE:

- **Summer Research Fellow at the Moore Lab**, Stanford University (Summer 2010)

REFERENCES:

- Gaby Maimon (maimon@rockefeller.edu)
- Ilana Witten (iwitten@princeton.edu)
- Charles R. Gallistel (galliste@ruccs.rutgers.edu)
- Samuel Gershman (gershman@fas.harvard.edu)
- Hashim Al-Hashimi (ha2639@cumc.columbia.edu)