

# Rares-Darius Buhai

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## Current Position

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**2025–present** Postdoc, School of Computer and Communication Sciences, EPFL.  
Hosted by: Prof. Ola Svensson (ola.svensson@epfl.ch).

## Education

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**2020–2025** **Dr.Sc.**, Department of Computer Science, ETH Zurich.  
Advisor: Prof. David Steurer (dsteurer@ethz.ch).  
**2019–2020** **M.Eng.**, Department of Electric Engineering and Computer Science, MIT.  
Advisor: Prof. Guy Bresler (guy@mit.edu).  
**2015–2019** **B.Sc.**, Department of Electric Engineering and Computer Science, MIT.

## Industry Experience

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**2017** Software Engineering Intern, Google.  
**2016** Software Engineering Intern, Facebook.

## Awards

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Gold medal at the International Olympiad in Informatics (IOI), years 2012, 2013, 2014, and 2015.

## Publications

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- **Finding Colorings in One-Sided Expanders.**  
Rares-Darius Buhai, Yiding Hua, David Steurer, Andor Vári-Kakas. FOCS 2025.
- **The Quasi-Polynomial Low-Degree Conjecture Is False.**  
Rares-Darius Buhai, Jun-Ting Hsieh, Aayush Jain, Pravesh K. Kothari. FOCS 2025.
- **Robust Mixture Learning when Outliers Overwhelm Small Groups.**  
Daniil Dmitriev, Rares-Darius Buhai, Stefan Tiegel, Alexander Wolters, Gleb Novikov, Amartya Sanyal, David Steurer, Fanny Yang. NEURIPS 2024.
- **Semirandom Planted Clique and the Restricted Isometry Property.**  
Jarosław Błasiok, Rares-Darius Buhai, Pravesh K. Kothari, David Steurer. FOCS 2024.
- **Computational-Statistical Gaps for Improper Learning in Sparse Linear Regression.**  
Rares-Darius Buhai, Jingqiu Ding, Stefan Tiegel. COLT 2024.
- **Beyond Parallel Pancakes: Quasi-Polynomial Time Guarantees for Non-Spherical Gaussian Mixtures.**  
Rares-Darius Buhai, David Steurer. COLT 2023.
- **Algorithms Approaching the Threshold for Semi-Random Planted Clique.**

Rares-Darius Buhai, Pravesh K. Kothari, David Steurer. STOC 2023.

- **Learning Restricted Boltzmann Machines with Sparse Latent Variables.**  
Guy Bresler, Rares-Darius Buhai. NEURIPS 2020.
- **Empirical Study of the Benefits of Overparameterization in Learning Latent Variable Models.**  
Rares-Darius Buhai, Yoni Halpern, Yoon Kim, Andrej Risteski, David Steurer. ICML 2020.
- **Human-aware robotic assistant for collaborative assembly: Integrating human motion prediction with planning in time.**  
Vaibhav V Unhelkar, Przemyslaw A Lasota, Quirin Tyroller, Rares-Darius Buhai, Laurie Marceau, Barbara Deml, Julie A Shah. IEEE ROBOTICS AND AUTOMATION LETTERS 2018.