

# ADITYA VIKRAM SINGH

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## Education

- Indian Institute of Science, Bengaluru** Aug 2019 – Present  
PhD candidate (Prime Minister's Research Fellow)  
Research: *Statistical Inference and Stochastic Approximation under Information Constraints*  
(Advised by Dr. Himanshu Tyagi)
- Indian Institute of Science, Bengaluru** Aug 2016 – Jan 2019  
Master of Technology (Research) in Electrical Engineering  
Research: *Theoretical and Algorithmic Aspects of Rigid Registration*  
(Advised by Dr. K.N. Chaudhury)
- Indian Institute of Technology, Hyderabad** 2009 – 2013  
Bachelor of Technology in Electrical Engineering with Minor in Physics

## Employment

- Indian Institute of Science** Research Assistant  
Bengaluru, India Feb 2019 - Jun 2019
- Qualcomm India Pvt. Ltd.** Engineer  
Hyderabad, India 2013 - 2015
- Gallium Arsenide Enabling Technology Center** Intern  
Hyderabad, India Summer 2012

## Papers

(Manuscripts accessible from [personal webpage](#))

- [1] J. Acharya, C. Canonne, A.V. Singh, H. Tyagi. **Optimal Rates for Nonparametric Density Estimation under Communication Constraints.** *Accepted for poster presentation at Neural Information Processing Systems (NeurIPS) 2021.*
- [2] A.V. Singh, K.N. Chaudhury. **On Uniquely Registrable Networks.** *IEEE Transactions on Network Science and Engineering* 7(3): 1327-1336 (2020). (Oral presentation at IEEE International Conference on Acoustic, Speech, and Signal Processing (ICASSP) 2019.)
- [3] R. Sanyal, A.V. Singh, K.N. Chaudhury. **An Iterative Eigensolver for Rank-Constrained Semidefinite Programming.** *Oral presentation at National Conference on Communications (NCC) 2019.*
- [4] A.V. Singh, K.N. Chaudhury. **Convergence Analysis of Nonconvex ADMM for Rigid Registration.** *Preprint at arXiv:1907.07729.*

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## Teaching

TA for graduate courses on Information Theory (2020), Concentration Inequalities (2021)

## Service

Reviewer for IEEE Transactions on Information Theory