

# Rakshit Jain

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## CONTACT INFORMATION

Department of Applied and Engineering Physics  
Cornell University  
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## RESEARCH INTERESTS

Experimental Condensed Matter Physics

## EDUCATION

**Cornell University**, Ithaca, USA

Graduate Student, Department of [Applied and Engineering Physics](#)  
Advisor: Daniel C Ralph

*August 2018 – Present*

**Indian Institute of Technology Bombay**, Mumbai, India

*July 2014 – May 2018*

Bachelor of Technology in Engineering Physics with honors, Department of [Physics](#)

- **Minor Degree:** Department of [Electrical Engineering](#)

## PUBLICATIONS AND PREPRINTS

- Arnab Bose\*, Nathaniel J. Schreiber\*, **Rakshit Jain\***, Ding-Fu Shao, Hari P. Nair, Jiaxin Sun, Xiyue S. Zhang, David A. Muller, Evgeny Y. Tsymbal, Darrell G. Schlom, Daniel C. Ralph; *Tilted spin current generated by collinear antiferromagnet RuO<sub>2</sub>*; [arXiv:2108.09150](#) (submitted)  
\* denotes equal contribution
- **Rakshit Jain**, VS Poonia, K Saha, D Saha, S Ganguly; *Sensitive magnetic compass in the presence of decohering nuclear environment* . [Proceedings A Royal Society](#) 2020.0778
- Arnab Bose, Jocienne N. Nelson, Xiyue S. Zhang, P. Jadaoun, **Rakshit Jain**, D. Schlom, D. C. Ralph, D. Muller, K. M. Shen and R. A. Buhrman; *Effect of Anisotropic Strain on the high spin Hall conductivity of epitaxial IrO<sub>2</sub> thin films* . [ACS Appl. Mater. Interfaces](#) 2020, 12, 49, 5541155416

## TALKS

- Spin Nernst effect in a topological insulator **APS March Meeting**; *March 2021*
- Spin orbit torques in heavy metals and topological materials; **IEEE EDS Guest Seminar, IIT Roorkee**; *Jan 2020*

## TEACHING EXPERIENCE

- **Teaching Assistant**, *Interfacing digital domain with the analog world* Spring 2018, Fall 2018
- **Teaching assistant**, *PH108: Electricity and Magnetism* Summer 2016, January 2018 - May 2018 (at IIT Bombay)

## VOLUNTEERING EXPERIENCE

- **CNF Ambassador**, *Cornell Nanofabrication Facility (CNF)* Jan 2020-
- **Outreach Volunteer**, *Cornell center for materials research (CCMR)* November 2018-
- **Volunteer**, *Science center, Family science night* September-December 2019

## TECHNICAL SKILLS

<b>Programming</b>	Mathematica, C/C++, Python, Matlab, HTML/CSS, L <sup>A</sup> T <sub>E</sub> X
<b>Software Packages</b>	COMSOL, T-CAD, Origin, Inkscape, Illustrator
<b>Science Software</b>	Python packages: QuTip, NumPy, SciPy and Matplotlib

## LANGUAGE PROFICIENCY

<b>English</b>	Native
<b>Hindi</b>	Native
<b>Spanish</b>	Working proficiency, vocational and writing