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| Personal Information: |
| Name: Dr. Rini Ganguly |
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| Mobile: +918452063928 |
| Current Designation: Assistant Professor at RV College of Engineering |
| Specialisation: Experimental Condensed Matter Physics |

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**Academic qualification:**

1. **PhD** on “Experimental Investigations on Disordered and Low dimensional superconductors”. (August 2012 to March 2018)

**Tata Institute of Fundamental Research**, DCMP & MS.

Supervisor: Prof. Pratap Raychaudhuri.

1. **M. Sc.** In Physics (2010-2012)

**IIT Kanpur**

1. **B. Sc.** In Physics (2007-2010)

**Asutosh College, University of Calcutta**.

**Work Experience:**

* Position held: **Assistant Professor**

Name of the Institute: Sri Sathya Sai University for Human Excellence

Period: October 2021 to March 2025

* Position held: **Research Associate**

Name of the Institute: Indian Association for the Cultivation of Science

Period: November 2020 to September 2021

* Position held: **Post-Doctoral Fellow**

Name of the Institute: Institute Neel, CNRS, Grenoble, France.

Period: April 2018 to April 2020.

* Position held: **Research Scholar (senior)**

Name of the Institute: Tata Institute of Fundamental Research, India.

Period: from August 2014 to March 2018

* Position held: **Research Scholar (junior)**

Name of the Institute: Tata Institute of Fundamental Research, India.

Period: August 2012- July 2014

* Position held: **Visiting Summer Project student**

Name of the Institute: Harish Chandra Research Institute, India.

Period: May 2011- July 2011

**Research Skills:**

* Measurement using home-built **Scanning Tunneling Microscope** (STM) down to 350 mK
* Measurement with inverted dilution refrigerator down to 150 mK.
* Two coil mutual inductance measurement in kHz.
* **Broadband Microwave measurement** in GHz.
* Instrumentation on low temperature STM/AFM (Preparation of tip and sample assembly, **building low-temperature amplifier**).
* Experience in the fabrication of **Superconducting Quantum Interference Device** (SQUID) E-beam lithography, Reactive ion Etching (RIE), Scanning electron microscopy (SEM).
* Thin film growth using DC Magnetron Sputtering and thermal evaporation, electron beam evaporation.
* Experience with **labview, Matlab, WSxm, Nanonis, Rev9, Origin**.

**Other Skills:**

* Experience in **University teaching** (3.5 years).
* Experience in Curriculum development, and lesson Planning.
* Experience in supervising PG dissertations.

**Award / Prize/ Certificate:**

* Ranked 1 in B.Sc. in University of Calcutta (2010).
* Ranked 1 in M.Sc. in IIT Kanpur (2012).
* CSIR-NET, JEST, GATE, JAM qualified.

**Conferences:**

* Paper presented in the National Conference on Recent Trends in Materials Science and Technology (2024, IIST Thiruvananthapuram, India).
* Participated in the National Conference on Advanced Energy Materials and Devices, AEMD-22 (2022, Bangalore, India).
* Paper presented at the largest national congress of Condensed Matter Physics in France (2018, Grenoble, France).
* Poster presented at Indo-French Women in Science (2018, Paris).
* Paper presented at the International Conference ParisEdge (2017, Paris, France).
* Paper presented at 5th International Conference on Superconductivity and Magnetism (ICSM 2016, Fethiye, Turkey).

**Publications:**

1. **Induction and probing methods of resistive-switching-based memories: a comparison and outlook, Rini Ganguly**, **The European Physical Journal Plus**, 140,655 (2025)
2. **Emergent metal-insulator transition in Fe-doped LaNiO3 thin films on glass substrate**, A Snehil Naidu, **Rini Ganguly**, **Applied Physics A**, 130, 871 (2024)
3. **Magnetization reversal across multiple serial barriers in a single Fe3O4 nanoparticles**, Sagar Paul, Ganesh Kotagiri, **Rini Ganguly**, Annapoorni Subramanian, Hervé Courtois, Clemens B. Winkelmann, and Anjan K. Gupta, **Phys. Rev. B** 105, L180410 (2022)
4. **Resistive-switching and memory in halide perovskite nanoparticles through a corona-poling approach: Necessity of type-I core–shell structures,** Arpan Bera, **Rini Ganguly**, Raja Chakraborty, Amlan J Pal, **Applied Physics Letters** 119 (22), 223501 (2021).
5. **Stochastic Resonance in Thermally Bistable Josephson Weak Links and Micro-SQUIDs,** Sagar Paul, Ganesh Kotagiri, **Rini Ganguly**, Hervé Courtois, Clemens B. Winkelmann, and Anjan K. Gupta, **Physical Review Applied** 15 (2), 024009 (2021).
6. **Non-Invasive Nanoscale Potentiometry and Ballistic Transport in Epigraphene Nanoribbons,** Alessandro De Cecco, Vladimir S. Prudkovskiy, David Wander, **Rini Ganguly**, Claire Berger, Walt A. de Heer, Hervé Courtois, and Clemens B. Winkelmann, **Nano Letters** 20 (5), 3786-3790 (2020).
7. **Probing magnetism of individual nano-structures using Nb**μ**-SQUIDs in hysteresis free mode,** [Sagar Paul](https://www.sciencedirect.com/science/article/pii/S0304885319334717?dgcid=author" \l "!), [Ganesh Kotagiri](https://www.sciencedirect.com/science/article/pii/S0304885319334717?dgcid=author#!), [**Rini Ganguly**](https://www.sciencedirect.com/science/article/pii/S0304885319334717?dgcid=author#!), [Harsh Parashari](https://www.sciencedirect.com/science/article/pii/S0304885319334717?dgcid=author#!), [Hervé Courtois](https://www.sciencedirect.com/science/article/pii/S0304885319334717?dgcid=author#!), [Clemens B. Winkelmann](https://www.sciencedirect.com/science/article/pii/S0304885319334717?dgcid=author#!), [Anjan K. Gupta](https://www.sciencedirect.com/science/article/pii/S0304885319334717?dgcid=author#!), **Journal of Magnetism and Magnetic Materials** 503, 166625 (2020).
8. **Robust pseudogap across the magnetic field driven superconductor to insulator-like transition in strongly disordered NbN films,** Indranil Roy, **Rini Ganguly**, Harkirat Singh, Pratap Raychaudhuri, **The European Physical Journal B** 92 (3), 49 (2019).
9. **Magnetic field induced emergent inhomogeneity in a superconducting film with weak and homogeneous disorder**, **Rini Ganguly**, Indranil Roy, Anurag Banerjee, Harkirat Singh, Amit Ghosal, and Pratap Raychaudhuri, **Phys. Rev. B** 96 (5), 054509 (2017).
10. **Slowing down of Vortex motion at the Berezinskii-Kosterlitz-Thouless transition in ultrathin NbN films**, **Rini Ganguly**, Dipanjan Chaudhuri, Pratap Raychaudhuri, and Lara Benfatto, **Phys. Rev. B** 91 (5), 054514 (2015).
11. **Disordering of the vortex lattice through successive destruction of positional and orientational order in a weakly pinned Co0.0075NbSe2 single crystal,** Somesh Chandra Ganguli, Harkirat Singh, Garima Saraswat, **Rini Ganguly,** Vivas Bagwe, Parasharam Shirage, Arumugam Thamizhavel, and Pratap Raychaudhuri, **Scientific *Reports*** 5, 10613 (2015).
12. **Orientational coupling between the vortex lattice and the crystalline lattice in a weakly pinned Co0.0075 NbSe2 single crystal,** [Somesh Chandra Ganguli](http://arxiv.org/find/cond-mat/1/au:+Ganguli_S/0/1/0/all/0/1), [Harkirat Singh](http://arxiv.org/find/cond-mat/1/au:+Singh_H/0/1/0/all/0/1), [**Rini Ganguly**](http://arxiv.org/find/cond-mat/1/au:+Ganguly_R/0/1/0/all/0/1), Vivas Bagwe, [Arumugam Thamizhavel](http://arxiv.org/find/cond-mat/1/au:+Thamizhavel_A/0/1/0/all/0/1), [Pratap Raychaudhuri](http://arxiv.org/find/cond-mat/1/au:+Raychaudhuri_P/0/1/0/all/0/1), **Journal of Physics: Condensed Matter** 28 (16), 165701 (2016).