

Dr. Rini Ganguly

Designation	:Assistant Professor
Qualification	:M.Sc., Ph.D.
Experience	:Teaching- 3.5 years Research – 3 years
Area of Interest	:Condensed Matter Physics -Superconductivity, Energy storage
Date of Joining at RVCE	:07/04/2025
Email ID	:riniganguly@rvce.edu.in

Publications:

1. Emergent metal-insulator transition in Fe-doped LaNiO_3 thin films on glass substrate, A Snehl Naidu, Rini Ganguly, *Applied Physics A*, 130, 871 (2024)
2. Magnetization reversal across multiple serial barriers in a single Fe_3O_4 nanoparticles, Sagar Paul, Ganesh Kotagiri, Rini Ganguly, Annapoorni Subramanian, Hervé Courtois, Clemens B. Winkelmann, and Anjan K. Gupta, *Phys. Rev. B* 105, L180410 (2022)
3. 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).
4. 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).
5. 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).
6. Probing magnetism of individual nano-structures using Nb μ -SQUIDS in hysteresis free mode, Sagar Paul, Ganesh Kotagiri, Rini Ganguly, Harsh Parashari, Hervé Courtois, Clemens B. Winkelmann, Anjan K. Gupta, *Journal of Magnetism and Magnetic Materials* 503, 166625 (2020).
7. 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).
8. 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).
9. 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).
10. Disorder of the vortex lattice through successive destruction of positional and orientational order in a weakly pinned $\text{Co}_{0.0075}\text{NbSe}_2$ 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).
11. Orientational coupling between the vortex lattice and the crystalline lattice in a weakly pinned $\text{Co}_{0.0075}\text{NbSe}_2$ single crystal, Somesh Chandra Ganguli, Harkirat Singh, Rini Ganguly, Vivas Bagwe, Arumugam Thamizhavel, Pratap Raychaudhuri, *Journal of Physics: Condensed Matter* 28 (16), 165701 (2016).

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).

Workshops:

Organizer and Resource person of the 5-day workshop titled “Workshop on Mathematica and Origin” held at Sri Sathya Sai University for Human Excellence for the internal students in August 2024.