

Dr. Aditee Rane



Designation: Assistant Professor,

Dr. D.Y. Patil Biotechnology & Bioinformatics Institute,
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EDUCATIONAL QUALIFICATIONS:

Ph.D. in Experimental High Energy Physics (2020) – Indian Institute of Science, Education and Research (IISER), Pune

M.Sc. in Physics (2009) – University of Mumbai- **61.6 %**

B.Sc. (Hons.) in Physics (2007) - University of Mumbai – **69.63 %**

Higher Secondary in Science (2004) – HSC Board (Pune) – **80.33 %**

Post graduate Diploma in Remote Sensing and GIS applications (2013) - Indian Institute of Remote Sensing (IIRS), ISRO, Dehradun - **First class**

CSIR NET (LS) qualified (2014)

GATE (2014) - **97.19 percentiles**

GATE (2012) - **97.40 percentiles**

EMPLOYMENT EXPERIENCE:

Lecturer, Rajapur High School and Junior college, Rajapur, Ratnagiri (2009-2010)

Junior Research Fellow, Tata Institute of Fundamental Research, Mumbai (2010-2012)

Lecturer, S.P.K Mahavidyalaya, Sawantwadi, Sindhudurg (2013- 2014)

Visiting faculty, Savitribai Phule Pune University (Sep-Dec 2019)

Assistant Professor, Dr. D.Y. Patil Biotechnology & Bioinformatics Institute, Dr. D.Y. Patil Vidyapeeth, Tathawade, Pune -411033 (Aug 2020 – present)

FIELD OF SPECIALIZATION: Experimental High Energy Physics

Specific Areas of Research Interest:

1. Search for Supersymmetry in final state of multijets with missing transverse energy
2. Understanding response of sub-atomic particles through various detectors
3. Simulation of detector responses using mathematical parameterizations

Distinctions & Awards:

1. Recognized as one of the best students at SERC School in Experimental High Energy Physics at Delhi University (2016)
2. Certificate for presenting a talk in XXII DAE-BRNS High Energy Physics Symposium, Delhi University (2016)
3. 22nd rank in merit list of SSC-Pune board, Kolhapur division (2002)

RESEARCH PAPERS IN PEER REVIEWED JOURNALS:

1. The CMS Collaboration (2019). Search for supersymmetry in proton-proton collisions at 13 TeV in final states with jets and missing transverse momentum. **Journal of High Energy Physics, Vol. 244**
2. The CMS Collaboration (2017). Search for supersymmetry in all-hadronic events with missing transverse momentum in proton-proton collisions at 13 TeV. **Physical Review D 96, Vol. 032003**

Book chapters/General articles:

1. Aditee Rane (2018), Searching for SUSY with multijets and missing transverse momentum, **Springer Proceedings in Physics book series (SPPHY, volume 203)**.
2. The CMS Collaboration (2016), Search for supersymmetry in events with jets and missing transverse momentum in proton-proton collisions at 13 TeV, **Available on CERN CDS information server**

Outreach Talks and Activities:

1. Demonstrator for physics laboratory experiments during DST-INSPIRE camp of school children held in IISER, Pune (2020)
2. A member of judging committee for 27th regional level Children's Science Congress held at KV Southern Command, Pune (2019)
3. A talk titled “Particle Zoo and Beyond” at DES-INSPIRE Internship Camp, Dapoli, Ratnagiri (2018)