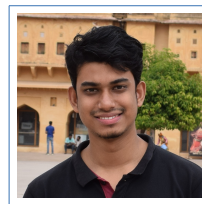


Gautam Saikia

Curriculum Vitae

Assistant Professor
Department of Physics
North Gauhati College
☎ (+91) 9365502873
✉ gautamsaikia91@gmail.com



Research Interests

Keywords Interstellar medium; Cosmic dust; Ultraviolet, infrared, radio astronomy; Galaxy; Magellanic clouds; nearby galaxies.

Overview My ongoing research work focuses on understanding various dust-gas interactions to explore the origin of cosmic dust in the Milky Way and nearby galaxies using archival data from multi-wavelength observatories and surveys to study different dust properties within varying interstellar environments.

Professional Experience

- March, 2021 - present **Assistant Professor**, Department of Physics, North Gauhati College, College Nagar, Guwahati, Assam, India 781031. [[Homepage](#)]
- January, 2019 - Feb, 2021 **Postdoctoral Research Associate**, Department of Physics, Indian Institute of Science (IISc), Bengaluru, Karnataka, India 560012.
- August, 2015 - July, 2018 **Visiting Research Scholar**, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, Maharashtra, India 411007.

Education

- 2015 - 2019 **Ph.D. (Astrophysics)**, Department of Physics, Tezpur University, India [Course work CGPA: **9.00**].
- 2010 - 2015 **Integrated M.Sc. in Physics**, Tezpur University, India [CGPA: **8.58**].
- 2010 **Intermediate +2 (Science)**, Central Board of Secondary Education (CBSE), Army Public School Narangi, Assam, India [Marks: **93.8%**].
- 2008 **High School**, CBSE, Sangam Academy, Assam, India [Marks: **93%**].

Ph.D. Thesis

- Title** Study of dust characteristics in the Milky Way and nearby galaxies
- Supervisor** Dr. Rupjyoti Gogoi, Assistant Professor, Department of Physics, Tezpur University, Napaam, India.
- Co-Supervisor** Prof. Ranjan Gupta, Senior Professor, Scientist H, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India.

Awards and Grants

- 2019 SERB International Travel Support (ITS) grant for travel to European Southern Observatory (ESO), Munich, Germany.
- 2017 JAXA grant for travel to the University of Tokyo, Japan.
- 2017 TMT Future Leaders grant for travel to University of California, Santa Cruz, United States of America.
- 2016 SERB International Travel Support (ITS) grant for travel to Tohoku University (Aobayama Campus), Sendai, Japan.
- 2016 Gold medal for academic excellence, Integrated MSc in Physics (2010-15), Tezpur University.
- 2014 PRL Summer Research Intership Program fellowship.
- 2014 ISRO 'Space Science Promotion Scheme' fellowship.
- 2008 Amul Vidya Shree Award (STD 10).

Professional Society Memberships

- Since 2019 Life member, Astronomical Society of India (ASI).
- Since 2021 Life member, Assam Physical Society (APS).
- Since 2023 Life Member, Assam Science Society.
- Since 2023 Junior Member, International Astronomical Union (IAU). [\[Webpage\]](#)

Computational Skills

- Platforms LINUX, WINDOWS
- Languages PYTHON, IDL, FORTRAN, HTML
- Applications \LaTeX , IRAF, DS9, AIPS, CASA, MS OFFICE

Publications

Refereed Publications

- 2020 **Gautam Saikia**, Narendra Nath Patra, Nirupam Roy and Chanda J. Jog. Gas-dust correlations in nearby galaxies: a case study of NGC 3184 and NGC 7793. *Monthly Notices of the Royal Astronomical Society*, volume 492, issue 2, p. 2517-2527. [arXiv:2001.00168] [\[DOI\]](#)
- 2019 **Gautam Saikia**, Rupjyoti Gogoi, Ranjan Gupta and Deepak B. Vaidya. Modelling the mid-infrared polarization in dust around young stars. *Monthly Notices of the Royal Astronomical Society*, volume 484, issue 3, p. 3582-3589. [arXiv:1901.07743] [\[DOI\]](#)

- 2018 **Gautam Saikia**, P. Shalima and Rupjyoti Gogoi. Modelling the diffuse dust emission around Orion. *Monthly Notices of the Royal Astronomical Society*, volume 476, issue 4, p. 4690-4696. [arXiv:1802.10573] [DOI]
- 2017 **Gautam Saikia**, P. Shalima, Rupjyoti Gogoi and Amit Pathak. Probing the infrared counterparts of diffuse far-ultraviolet sources in the Galaxy. *Planetary and Space Science*, volume 149, p. 77-82. [arXiv:1705.00380] [DOI]
- 2016 **Gautam Saikia**, P. Shalima, Rupjyoti Gogoi and Amit Pathak. Comparison of diffuse infrared and far-ultraviolet emission in the Large Magellanic Cloud: The data. *Planetary and Space Science*, volume 133, p. 90-96. [arXiv:1604.00966] [DOI]

Conference Proceedings

- 2018 **Gautam Saikia**, Jaikhomba Singha, P. Shalima, Rupjyoti Gogoi and Amit Pathak. Modelling 30 Doradus in the Large Magellanic Cloud. In *The Cosmic Wheel and the Legacy of the AKARI archive: from galaxies and stars to planets and life*, edited by Takafumi Ootsubo, Issei Yamamura, Kazumi Murata and Takashi Onaka, p. 137-140. [ISSN (online): 2433-2232]

Book Chapters

- 2020 **Gautam Saikia**. Multiwavelength Astronomy: new insights into the Milky Way. In *INFINITY: A collection of research articles in Mathematical and Physical Science*, edited by Dr. Chandra Chutia and Dr. Monisa Rajkhowa, p. 09-18. [ISBN: 978-93-89940-96-1]

Resource Person and Outreach

- 2022 Talk titled 'Exoplanets: What is the hype all about?' presented as a resource person at the 4th IUCAA sponsored Workshop on Astronomical Data Analysis (WADA 2022), May 12-14, Jagannath Barooah College (Autonomous), Jorhat, Assam, India.
- 2020 Talk titled 'Exploring the life and times of Cosmic Dust in our local universe' presented as the resource person at a webinar organised by 'IUCAA Centre for Astronomy Research & Development (ICARD)', November 05 (online), Tezpur University, India.
- 2019 Science Communicator at Vigyan Samagam Exhibition, July 29 - September 28, Visvesvaraya Industrial & Technological Museum, Bengaluru, India.
- 2018 Resource person at IUCAA sponsored workshop on 'Introductory Astronomy & Astrophysics', November 30 - December 01, Digboi College, Assam, India.
- 2018 Talk titled 'Dust characteristics in Orion: A case study' presented as resource person at the Southampton IUCAA Training for Astronomical Research and Education (SITARE), May 02 - 04, Tezpur University, Assam, India.

2016 Tutor at IUCAA sponsored 'Workshop on Astrophysical Data Analysis', March 21 - 23, Assam Don Bosco University, Assam, India.

Conferences, Meetings and Workshops

International Conferences

- 2024 **Talk** titled 'A study of dust scattering and emission in 30 Doradus region of the Large Magellanic Cloud' presented at the 'International Conference on Frontiers in Pure and Applied Physics (ICFPAP 2024)', February 29 - March 02, University of Science and Technology Meghalaya (USTM), India.
- 2020 **Talk** titled 'Study of gas-dust correlations in a sample of nearby galaxies' presented at 'The Rise of Metals and Dust in Galaxies through Cosmic Time', October 26 - 30 (online), Laboratoire d'Astrophysique de Marseille (LAM), France.
- 2020 **Invited Talk** titled 'Correlation studies to investigate dust properties in the Magellanic Clouds' presented at the 'Meeting on Magellanic System', February 19 - 20, IIA, Bengaluru, India.
- 2019 **Talk** titled 'Study of gas-dust correlations in NGC 3184 and NGC 7793' presented at the international conference on 'Infrared Astronomy and Astrophysical Dust (IRAAD)', October 22 - 25, IUCAA, Pune, India.
- 2019 **Talk** titled 'Correlation studies to investigate the PAH abundance in the Small Magellanic Cloud' presented at the workshop 'A Synoptic View of the Magellanic Clouds: VMC, Gaia and Beyond', September 09 - 13, European Southern Observatory (ESO) - HQ, Garching near Munich, Germany.
- 2017 **Talk** titled 'Modelling 30 Doradus in the Large Magellanic Cloud using AKARI observations' presented at the 4th AKARI international conference, October 17 - 20, University of Tokyo, Tokyo, Japan.
- 2017 **Poster** titled 'Study of diffuse dust characteristics around Orion' presented at the workshop 'Preparing TMT Future Science and Technology Leaders', August 22 - 29, University of California Santa Cruz, California, USA.
- 2016 **Poster** titled 'Modelling the diffuse ultraviolet emission around Orion' presented at the 9th Meeting on Cosmic Dust, August 15 - 19, Tohoku University (Aobayama Campus), Sendai, Japan.
- 2014 **Poster** titled 'Infrared counterparts of diffuse far UV sources' presented at the international conference on 'Interstellar Dust, Molecules and Chemistry (IDMC)', December 15 - 18, Tezpur University, Assam, India.

National Conferences

- 2021 **Talk** titled 'Study of gas-dust correlations in the THINGS galaxy sample' presented at the National Conference on Emerging Trends in Physics (NCETP 2021), June 16 (online), Tezpur University, Assam, India.
- 2020 **Talk** titled 'Study of dust characteristics in the Milky Way and nearby galaxies' presented at the 38th Meeting of Astronomical Society of India, February 13 - 17, IISER, Tirupati, India.
- 2019 **Poster** titled 'Probing the PAH abundance in the Small Magellanic Cloud' presented at the 37th Meeting of Astronomical Society of India, February 18 - 22, Christ University, Bengaluru, India.
- 2018 **Talk** titled 'Mid-infrared polarization in dust around young stars' presented at the North-East Meet of Astronomers (NEMA) IV, November 26 - 28, Assam University, Silchar, India.
- 2018 **Poster** titled 'A study of HII regions in the Large Magellanic Cloud using Spitzer and AKARI observations' presented at the 36th Meeting of Astronomical Society of India, February 05 - 09, Osmania University, Hyderabad, India.
- 2017 **Talk** titled 'Probing the infrared counterparts of diffuse far-ultraviolet sources in the Galaxy' presented at the North-East Meet of Astronomers (NEMA) III, October 05 - 07, St. Anthony's College, Shillong, India.
- 2017 **Poster** titled 'Infrared polarization of Circumstellar Dust' presented at the 35th Meeting of Astronomical Society of India, March 06 - 10, Birla Institute of Scientific Research (BISR), Jaipur, India.
- 2016 **Talk** titled 'A comparative study of diffuse dust emission in the Large Magellanic Cloud' presented at the North-East Meet of Astronomers (NEMA) II, December 12 - 14, Tezpur University, Assam, India.
- 2016 **Poster** titled 'Probing the source of FUV diffuse emission in Orion' presented at the 34th Meeting of Astronomical Society of India, May 09 - 13, Kashmir University, Srinagar, India.

Workshops

- 2017 SERB School on 'Observational Astronomy', October 25 - November 14, Tezpur University, Assam, India.
- 2017 Indo-French Astronomy School on Spectroscopy & Polarimetry (IFAS3), July 31 - August 08, IUCAA, Pune, India.
- 2017 IUCAA sponsored 'ASTROSAT Data Analysis Workshop', May 03 - 05, Tezpur University, Assam, India.
- 2017 Workshop on 'Data Intensive Science', February 13 - 18, IUCAA, Pune, India.
- 2017 Topical Course on 'Computational Statistics and Astro-Statistics', January 02 - 10, IUCAA, Pune, India.

- 2016 IUCAA sponsored workshop on 'Astronomical Data Analysis', March 17 - 19, Jagannath Barooah College, Jorhat, Assam, India.
- 2014 Workshop on 'Non-linear Dynamics and Application', March 14 - 15, Tezpur University, Assam, India.
- 2013 IUCAA sponsored 'Workshop on Solar Astronomy', December 17 - 19, Tezpur University, Assam, India.
- 2013 IUCAA sponsored 'Workshop on Infrared Astronomy', March 19 - 21, Tezpur University, Assam, India.

Short-term Projects

- 2015 **Master's thesis II** titled 'Infrared counterparts of diffuse far ultraviolet sources', January - May, Tezpur University, Assam, India. [P.I.: Dr. R. Gogoi]
- 2014 **Master's thesis I** titled 'Identification of point sources in and around elliptical galaxies and aperture photometry', August - December, Tezpur University, Assam, India. [P.I.: Dr. R. Gogoi]
- 2014 **Summer research internship** project titled 'Generation of radially and azimuthally polarized beam by interferometric method', May 28 - July 18, Physical Research Laboratory, Ahmedabad, India. [P.I.: Prof. R. P. Singh]
- 2013 **Minor research** project titled 'An introduction to infrared radiation and infrared astronomy', January - May, Tezpur University, Assam, India.

Professional Development Courses

Faculty Development Programme (FDP)

- 2023 Week-long FDP on 'Implementation of NEP 2020 in Higher Educational Institutions' organized by Teaching Learning Centre, Tezpur University, India, September 07 - 13 (online).
- 2022 Week-long FDP on 'E-Content Development' organized by Teaching Learning Centre, Tezpur University in association with the University of Science and Technology Meghalaya (USTM), April 04 - 08 (online).
- 2021 Week-long FDP on 'Moodle Learning Management System' offered by Spoken Tutorial Project, IIT Bombay, August 23 - 29 (online).

Induction/Orientation Programme

- 2022 Four-week Induction/Orientation programme for 'Faculty in Universities/Colleges/Institutes of Higher Education' conducted by Teaching Learning Centre, Ramanujan College, University of Delhi, April 20 - May 19 (online).

Refresher Course

- 2024 Two-week refresher course on 'Advanced Research Methodology' conducted by Teaching Learning Centre, Ramanujan College, University of Delhi, India, April 26 - May 09 (online).

Other Professional Courses

- 2023 Course on 'Cyber Security' under Microsoft Cyber Shikshaa for Educators Program conducted by ICT Academy, January 03 - 12 (online).

Administrative Roles

Coordinator

- 2023 Coordinator of 'Cyber Security' course organized by Microsoft Philanthropies and ICT Academy
- Since 2023 RUSA Coordinator of North Gauhati College
- Since 2023 Head (i/c), Department of Electronics, North Gauhati College
- Since 2023 Coordinator of Data Management module under SAMARTH eGov suite
- Since 2023 NIRF Coordinator of North Gauhati College
- Since 2022 Convenor of Website committee and webmaster of College Website
- 2022 Coordinator of twelve-day certificate course on 'Introduction to Scientific Writing in LaTeX'
- Since 2021 Convenor of Criterion 2 (Teaching, Learning and Evaluation) for NAAC assessment
- 2021 Coordinator of 'Employability Skill Training in Financial Literacy' program organized by Reliance and ICT Academy
- Since 2021 Coordinator of Physics Seminar Series

Member

- Since 2023 Member of NGC Science Forum
- Since 2023 Member of Biotech-Hub committee
- Since 2023 Member of SSR preparation committee
- Since 2022 Member of College Admission Committee
- Since 2021 Member of Document Verification Committee in the AQAR, IIQA, and SSR
- 2021 - 2023 Member of Environmental Studies (EVS) course committee
- 2021 - 2022 Member of class representative selection committee

Other Roles

- 2022 Assistant officer-in-charge of BA/BSc 2nd Semester Final Examination

- Since 2022 Examiner for Theory papers of B.Sc. Final Examination under Gauhati University
- 2021 - 2022 Duty officer for College Admission process
- Since 2021 Counting Officer in NGC Students' Union Election

External Duties

- 2024 External examiner for B.Sc. Practical Examination at Guwahati College, Guwahati, Assam
- 2023 & 2024 External Evaluator for Gunotsav
- 2023 & 2024 Supervising Officer for the High School Leaving Certificate Examination
- 2023 External examiner for B.Sc. Practical Examination at Pandu College, Guwahati, Assam
- Since 2022 External examiner for B.Sc. Practical Examination at SBMS College, Sualkuchi, Assam
- 2021 & 2022 External Examiner for HS Final (Practical) Examination at Dadara Higher Secondary School, Assam

Personal Information

- Name **GAUTAM SAIKIA**
- Date of Birth December 11, 1991
- Gender Male
- Marital Status Married
- Nationality Indian
- Languages English, Assamese, Hindi
- Phone Nos. (+91) 9365502873 / 9401122155
- Email id gautamsaikia91@gmail.com
- Address Department of Physics, North Gauhati College, College Nagar, Guwahati, Assam 781031

Academic Collaborations

- Tezpur University
- Inter-University Centre for Astronomy and Astrophysics (IUCAA)
- Manipal Centre for Natural Sciences (MCNS)
- Banaras Hindu University (BHU)
- Indian Institute of Science (IISc)
- Raman Research Institute (RRI)

Academic References

- **Dr. Rupjyoti Gogoi**

Assistant Professor,
Department of Physics,
Tezpur University,
Napaam - 784028, India.

- **Prof. Amit Pathak**

Associate Professor,
Department of Physics,
Banaras Hindu University,
Varanasi - 221005, India.

- **Prof. Ranjan Gupta**

Senior Professor, Scientist H,
Inter-University Centre for
Astronomy and Astrophysics, Pune
- 411007, India.

- **Dr. Shalima Puthiyaveettil**

Research Faculty,
Manipal Centre for Natural
Sciences (MCNS), Manipal,
Karnataka - 576104, India.

DECLARATION

I hereby declare that all the information mentioned above is true to the best of my knowledge.

Date: 10.05.2024

Place: Guwahati, Assam.

(GAUTAM SAIKIA)