



Parichay Mazumdar

DoB: 17.05.1994

City: Bonn, Germany

Mobile : +49 15751821472

E-Mail : mazumdar.parichay@gmail.com

BIO

I am a Ph.D. researcher in astrophysics, currently leading a galaxy-wide survey of molecular gas using the APEX Telescope. I solve complex mathematical problems using statistics and analytical modeling. I aspire to use my analytical and problem-solving skills to create a positive impact in the world. I am a fast learner. Always eager to learn new things and acquire new skills.

EXPERIENCE

2017–Present

PH.D. IN ASTRONOMY AND ASTROPHYSICS

Max-Planck-Institute for Radioastronomy, Bonn, Germany

Topic: Physical and Chemical Properties of Molecular Clouds

- Galaxy-wide survey of molecular clouds using APEX telescope
- Handling large multidimensional datasets
- Signal and Image Processing
- Data Visualization
- Fitting models to data using mathematical tools (e.g. regression analysis, chi-square statistic, stacked spectrum analysis)

EDUCATION

2014–2017

M.SC. (PHYSICS AND ASTRONOMY)

Bonn-Cologne Graduate School for Physics and Astronomy &

Max-Planck-Institute for Radioastronomy, Bonn, Germany

2011–2014

B.SC. (PHYSICS HONS.)

St. Stephen's College, University of Delhi, India

PROGRAMMING LANGUAGES

Python, Fortran, C++

SKILLS

Communication, Critical Thinking, Collaboration, Project Management, Leadership

LANGUAGES

English (Native), Hindi (Fluent), Bengali (Fluent), Odia (Fluent), German (A2-B1), Dutch (A1)

PUBLICATIONS

FIRST AUTHOR

- Mazumdar, P. et al. (2021), "G305 Giant Molecular Cloud: II. Clump Properties", Astronomy & Astrophysics accepted
- Mazumdar, P. et al. (2021), "G305 Giant Molecular Cloud: I. Feedback on Molecular Gas", Astronomy & Astrophysics, Volume 650, id.A164, 16 pp.
- Mazumdar, P. et al. (2014), "Constraints on the gas masses of low- z DLAs.", MNRAS, Vol. 443, p. L29-L33

CO-AUTHOR

- Schuller et al. (2021), "SEDIGISM: First data release", MNRAS, Vol. 500, Issue 3, pp.3064-3082
- Duarte-Cabral et al. (2021), "The SEDIGISM survey: molecular clouds in the inner Galaxy", MNRAS, Vol. 500, Issue 3, pp.3027-3049
- Neufeld et al. (2021), "Terahertz Water Masers. II." ApJ, Vol. 907, Issue 1, id.42, 16 pp.
- Vol'vach, L.N. et al. (2019), 'A Giant Water Maser Flare in the Galactic Source IRAS 18316-0602', Astronomy Reports, Volume 63, Issue 1, pp.49-65

CONFERENCE TALKS AND POSTERS

- Mar 2020: Science with APEX
Talk: LASMAGAL: the G305 star-forming complex
- Jun 2019: Zooming in on Star Formation – Nafplio, Greece
Poster: LASMAGAL
- Sep 2018: Young European Radio Astronomers Conference
Talk: LASMA (13CO, J=3-2) Survey of the Milky Way
- Mar 2018: Science with APEX
Talk: Sub-mm observations of the shocked molecular gas associated with the Supernova Remnant W28F

AWARDS AND ACHIEVEMENTS

- 2014-2016: Honors Branch in Bonn Cologne Graduate School (BCGS)
- 2011-2014: INSPIRE scholarship, Dept. of Science & Technology, Government of India
- 2005-2009: Child Artist in All India Radio.

VOLUNTARY WORK

- 2017-2019: Erasmus Student Network (Member)
- 2012-2014: Teaching underprivileged kids. Evening Classes program at St. Stephen's college.

HOBBIES & INTERESTS

Singing, Bouldering, Swimming, D&D, Playing Cajon, Football, Ultimate Frisbee.

PROFESSIONAL REFERENCES

Prof. Dr. Karl M. Menten,
Executive Director,
Max-Planck-Institut für Radioastronomie,
Auf dem Hügel 69, D-53121 Bonn, Germany
Office : +49 228-525-471
E-Mail : kmenten@mpifr-bonn.mpg.de

Dr. Friedrich Wyrowski
Scientific Staff,
Millimeter and Submillimeter Astronomy Department,
MPIfR, Auf dem Hügel 69, D-53121 Bonn, Germany
Office : +49 228-525-381
E-Mail : wyrowski@mpifr-bonn.mpg.de

Dr. James Urquhart
Lecturer in Physics and Astrophysics,
Head of Centre of Astronomy and Planetary
Sciences,
University of Kent, Canterbury, CT2 7NH
The United Kingdom
Phone: +44 1227 816469
E-Mail: j.s.urquhart@kent.ac.uk

Dr. Dario Colombo
Postdoctoral Research Fellow.,
Millimeter and Submillimeter Astronomy Department,
MPIfR,
Auf dem Hügel 69, D-53121 Bonn, Germany
Office : +49 228-525-196
E-Mail : dcolombo@mpifr-bonn.mpg.de