

Narayana P. Bhat

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Nationality: United States.

Language skills: English, Kannada, Hindi, Tulu, Tamil, Marathi.

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1. Highest Education

A doctorate degree (Ph. D.) in Physics from the University of Bombay.

2. Fields of interest

High Energy Astrophysics; Observations, Instrumentation & data Analysis,
Gamma-ray Burst Astrophysics, Neutron flux measurement at the International Space
Station using Advanced Neutron Spectroscope.

3. Areas of Specialization and Experience

- Co-Investigator of the Gamma ray Burst Monitor Project
- Cosmic Ray Physics
- Very high energy gamma ray (> 0.5 TeV) astronomy experiment using atmospheric Cerenkov technique.
- Galaxy Photometry
- Gamma ray line experiment using balloon borne payload consisting of high purity Germanium detector (HPGe) shielded by Sodium Iodide [NaI(T^l)].
- Measurement of angular distribution of low energy cosmic ray muons underground.

4. Employment Summary

- a. 2017- Adjunct Prof: Space Science Department, University of Alabama in Huntsville, Alabama.
- b. 2003-17 Research Scientist II: University of Alabama in Huntsville, Alabama.
- c. 1969-03 Senior Professor: Tata Institute of Fundamental Research (TIFR)
- d. 1991-93 Sr. Fellow of NRC at the George C. Marshall Space Flight Center Huntsville, Alabama.
- e. 1979-82 Senior Research Asst. at the University of Durham, (UK)

5. Recent Publications

1. The Fourth Fermi-GBM Gamma-Ray Burst Catalog: A Decade of Data, **The Astrophysical Journal, Volume 893, Issue 1, id.46, 14 pp. (2020)**

2. Fermi and Swift Observations of GRB 190114C: Tracing the Evolution of High-energy Emission from Prompt to Afterglow, *The Astrophysical Journal*, Volume 890, Issue 1, id.9, 19 pp. (2020)
3. Observation of inverse Compton emission from a long γ -ray burst, *Nature*, Volume 575, Issue 7783, p.459-463
4. A Decade of Gamma-Ray Bursts Observed by Fermi-LAT: The Second GRB Catalog, *The Astrophysical Journal*, Volume 878, Issue 1, article id. 52, 61 pp. (2019)
5. On the Interpretation of the Fermi-GBM Transient Observed in Coincidence with LIGO Gravitational-wave Event GW150914, Connaughton, V. et al., 2018, *Astrophysical Journal* **853**, L9
6. Searching the Gamma-Ray Sky for Counterparts to Gravitational Wave Sources: /Fermi GBM and LAT Observations of LVT151012 and GW151226, Racusin J. L., et al., 2018, *Astrophysical Journal* **835**, 82
7. The spectroscopy of individual terrestrial gamma-ray flashes: Constraining the source properties, Mailyan B. G. et al., 2016, *JGRA*, 12111346
8. Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914, Abbott, B. P. et al., 2016, *ApJ*, 826, L13.
9. Supplement: "Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914" (2016, *ApJL*, 826, L13), Abbott, B. P. et al., 2016, *ApJS*, 225, 8.
10. Fermi GBM Observations of LIGO Gravitational-wave Event GW150914, Connaughton, V., et al., 2016, *ApJ*, 826, 6.
11. The Spectral Sharpness Angle of Gamma-ray Bursts, Yu, H. et al., 2016, *JASS*, 33, 109
12. Fermi LAT Stacking Analysis of Swift Localized GRBs, Ackerman, M., et al., 2016, *ApJ*, 822, 68.
13. The 3rd Fermi GBM Gamma-Ray Burst Catalog: The First Six Years Narayana P. Bhat et al., 2016, *Astrophysical Journal Supplement* **223**,28
14. Toward a Better Understanding of the GRB Phenomenon: a New Model for GRB Prompt Emission and its Effects on the New $L_i^{NT} \propto E_{peak,i}^{rest,NT}$ Relation Guiriec et al., *Astrophysical Journal* **807**, 148, (2015)
15. The Five-Year Fermi/GBM Magnetar Burst Catalog, Collazzi, A. C. et al., 2015, *ApJS*, 218, 11
16. Localization of Gamma-Ray Bursts Using the Fermi Gamma-Ray Burst Monitor Connaughton, et al., *Astrophysical Journal Supplement*, 216, 32 (2015)
17. Fermi gamma-ray burst monitor detector performance at very high counting rates Bhat et al., *Experimental Astronomy*, 38, 331 (2014)
18. GROND coverage of the main peak of gamma-ray burst 130925A Greiner et al., *Astronomy & Astrophysics*, 568, 75 (2014)
19. Pulse properties of terrestrial gamma-ray flashes detected by the Fermi Gamma-Ray Burst Monitor Foley et al., *JGRA*, 119, 5931 (2014)
20. An Observed Correlation between Thermal and Non-thermal Emission in Gamma-Ray Bursts Burgess et al., *Astrophysical Journal*, 784, 43 (2014)
21. The Second Fermi GBM Gamma-Ray Burst Catalog: The First Four Years Von Kienlin et al., *Astrophysical Journal Supplement*, 211, 13 (2014)
22. Time-resolved Analysis of Fermi Gamma-Ray Bursts with Fast- and Slow-cooled Synchrotron Photon Models Burgess et al., *Astrophysical Journal*, 784, 17 (2014)
23. The First Pulse of the Extremely Bright GRB 130427A: A Test Lab for Synchrotron

Shocks Preece et al., Science 343, 51 (2014)

6. Skills

Operating System: MacOS, LINUX, Windows and applications, Languages: Python, IDL, Fortran, Perl, LaTeX