

Curriculum Vitae

Dr. Gopal Narayanan

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(i) Professional Preparation

Anna University, Madras, India: Electronics and Communication Engineering, B. S., June 1989

California Institute of Technology, Pasadena, CA, Electrical Engineering, M. S., June 1990

University of Arizona, Tucson, AZ, Astronomy, Ph.D., Nov., 1997

(ii) Appointments

Sep 2016 - current: Research Professor, University of Massachusetts.

July 2009 - Aug 2016: Research Associate Professor, University of Massachusetts.

June 2000 - June 2009: Research Asst. Professor, University of Massachusetts.

December 1997 - May 2000: Postdoctoral Research Associate, Five College Radio Astronomy Observatory, University of Massachusetts.

Jan 1992 - Nov. 1997: Graduate Research Assistant, Steward Observatory, University of Arizona.

Aug 1995 - May 1996: Graduate Teaching Assistant, Steward Observatory, University of Arizona.

Sep 1990 - Oct 1991: Graduate Research Assistant, Dept of Astronomy, California Institute of Technology.

June 1990 - Sep 1990: Research Engineer, Owens Valley Radio Observatory

Sep 1989 - June 1990: Graduate Teaching Assistant, Dept of Electrical Engineering, California Institute of Technology.

(iii) Selected Publications

Related Publications

1. Event Horizon Telescope Collaboration, "First M87 Event Horizon Telescope Results. II. Array and Instrumentation", 2019, ApJ Letters, 875, Issue 1, 28pp.
2. **G. Narayanan**, R. L. Snell, and A. Bemis, "Molecular outflows identified in the FCRAO CO survey of the Taurus Molecular Cloud", 2012, MNRAS, Volume 425, Issue 4, pp. 2641-2667.
3. J.C. Bardin, M. Yogeesh, N. R. Erickson, and **G. Narayanan**, "A 7095 GHz SiGe Down-converter IC for Large-N Focal Plane Arrays," Proc. 2014 IEEE IMS, accepted (2014).
4. R. L. Snell, **G. Narayanan**, M. S. Yun, M. Heyer, A. Chung, W. Irvine, N. R. Erickson, and G. Liu, "The Redshift Search Receiver 3 mm Wavelength Spectra of 10 Galaxies", 2011, AJ, Volume 141, Issue 2, article id. 38, 12 pp
5. **G. Narayanan**, M. H. Heyer, C. Brunt, P. F. Goldsmith, R. L. Snell, Y. Tang, and D. Li, 2008, "The Five College Radio Astronomy Observatory CO Mapping Survey of the Taurus Molecular Cloud. "Astrophysical Journal Supplement", vol 177, number 1, 2008, Pages 341-361.

Other Publications

1. P. F. Goldsmith, M. H. Heyer, **G. Narayanan**, R. L. Snell, D. Li, and C. Brunt, 2008, “Large-Scale Structure of the Molecular Gas in Taurus Revealed by High Spatial Dynamic Range Spectral Line Mapping”, *Astrophysical Journal*, vol 680, number 1, Pages 428-445
2. I. Stojimirović, R. L. Snell, and **G. Narayanan**, 2008, “Multiple Parsec-Scale Outflows in the NGC 2071 Cluster”, *Astrophysical Journal*, vol 679, number 1, Pages 557-569.
3. I. Stojimirović, **G. Narayanan**, R. L. Snell, & J. Bally 2006, “Entrainment Mechanisms for Outflows in the L1551 Star-forming Region”, *Astrophys. Jour*, 649, 280.
4. **G. Narayanan**, & D. W. Logan 2006, “Kinematics of Protostellar Objects in the ρ Ophiuchus A Region” 647, 1170.
5. **G. Narayanan**, G. Moriarty-Schieven, C. K. Walker and H. Butner, 2002, “Detection of Infall Signatures Towards Serpens SMM4”, *Astrophysical Jour.*, 565, 319.

(iv) Synergistic Activities

- Wrote DREAMPY, a data analysis program used for LMT data analysis for heterodyne receivers
- Author of software programs and scripts for the maintenance of a large relational database at the FCRAO 14 m telescope that is helpful in the archival and retrieval of all OTF data taken at FCRAO.
- Reviewer for NASA, IEEE Journals