

Shamibrata Chatterjee

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Research Interests:

- The Radio Transient Sky; Fast Radio Bursts; Compact Objects: Neutron Stars.
- Precision Astrometry: Neutron Star Proper Motions and Parallaxes.
- Pulsar Timing Arrays and Nanohertz Gravitational Waves.

Education:

- 2003 Ph.D. (Astronomy), Cornell University.
2000 M.S. (Astronomy), Cornell University.
1996 B.Tech. (Electrical Engineering), Indian Institute of Technology, Madras.

Professional Experience:

- 2015— Senior Research Associate
2009—2014 Research Associate
Department of Astronomy and CRSR, Cornell University.
2008—2009 Research Scientist *and* Queen Elizabeth II Fellow
CSIRO Australia Telescope National Facility.
2006—2008 University Postdoctoral Research Fellow
School of Physics, The University of Sydney.
2003—2006 Jansky Fellow
Harvard-Smithsonian Center for Astrophysics, Cambridge, MA *and*
National Radio Astronomy Observatory, Socorro, NM.
1999—2003 Graduate Research Assistant
Department of Astronomy, Cornell University, Ithaca, NY.
Pulsar Parallaxes, Bow Shock Nebulae and the Interstellar Medium
1998—1999 Junior Research Associate
National Radio Astronomy Observatory, Socorro, NM.
Techniques for Sub-millarcsecond Pulsar Astrometry
1995—1996 Undergraduate Thesis Research
Electrical Engineering, Indian Institute of Technology, Madras.
Solid State Device Fabrication

Honors and Awards:

- 2008 Queen Elizabeth II Fellowship, Australian Research Council
2002 Cranson W. and Edna B. Shelley Award for Graduate Research in Astronomy
Department of Astronomy, Cornell University
2001 Eleanor Norton York Prize in Astronomy
Department of Astronomy, Cornell University
1996 Dr. Shankar Dayal Sharma, President of India Prize
for All Round Proficiency in Curricular and Extracurricular Activities
1996 Motorola Prize (Certificate of Academic Distinction)
Indian Institute of Technology, Madras
1996 Indian Institute of Technology Certificate of Merit
for Excellence in Cultural Activities and Organizational Abilities

Professional Activities and Organizations:

- 2015 Peer Reviewer, *NASA Swift* Cycle 12; *NASA Fermi* Cycle 8.
2013— NRAO Users Committee member.
2012 NSF External Reviewer, NRAO-ALMA Program Plan Review.
2012 External Reviewer, Discovery Grants, NSERC Canada.
2010, 2004 Peer Reviewer, *Chandra X-ray Observatory* Cycle 14, Cycle 6.
2009— Peer Reviewer for Monthly Notices of the Royal Astronomical Society.
2008—2009 Member, Science Council, Murchison Widefield Array project.
2006—2008 Peer Reviewer, NRAO *VLA*, *VLBA*, *GBT* proposals.
2005 Guest Editor (with Cara Rakowski), “Young Neutron Stars and Supernova Remnants”
Advances in Space Research, Volume 35, Issue 6, 2005
Proceedings of the 35th COSPAR Scientific Assembly, E1.4, Paris, July 2004.
2003— Peer Reviewer for the *Astrophysical Journal* and *Astrophysical Journal Letters*.
Peer Reviewer for *Astronomy & Astrophysics*.
2003— Member, American Astronomical Society.

Teaching Experience:

- 2014, 2015 Lecturer, Astro 2299, “Search for Life in the Universe”; Cornell University.
2008 Lecturer, Physics 1500, “Introduction to Astronomy”; The University of Sydney.
2006—2007 Laboratory Supervisor, Physics 1001 and 1003, “Physics 1”; The University of Sydney.
1996 Certificate of Merit, Graduate Teaching Development Program.

Student Research Mentoring and Supervision:

Undergraduate Research Projects

- 2011—2014 Anirudh Chiti (Cornell University Physics)
Transient Events in Archival VLA Observations of the Galactic Center; AAS #223
2010—2011 Andrew Bass (Cornell University A&EP)
2007—2008 Christopher Hales (The University of Sydney)
A Proper Motion for the ‘Mouse’ Pulsar Wind Nebula, 2009, *ApJ*, **706**, 1316
- Research Experience for Undergraduates: Summer student mentor
- 2016 Matthew Abruzzo (Haverford College)
FRB 121102: Searching for a Host; AAS #229
2015 Brent Shapiro-Albert (Union College)
Modeling Pulsar Trajectories to determine Birth Locations; AAS #227
Chambliss Astronomy Achievement student award.
2014 Molly Finn (University of Rochester)
Hybrid Imaging–Periodicity Search for Radio Pulsars: a VLA Pilot Survey; AAS #225
2012 Abhimat Krishna Gautam (UC Berkeley)
Multi-epoch analysis of the Guitar Nebula at Optical, X-Ray, and Radio λ s, AAS #221
2011 Julia Stone (Barnard College)
Multimoment Radio Transient Detection, Spitler et al. 2012, *ApJ*, **748**, 73
2008 Sarah Traine (The University of Melbourne)
2006 Christopher Hales (The University of Sydney)
Constraining the Proper Motion of Two Magnetars, Kaplan et al. 2008, *AJ*, **137**, 354
2004 Benjamin Zeiger (Willamette College)
The Proper Motion of PSR B1951+32 and Its Interaction With CTB80, AAS #205

Shamibrata Chatterjee: Publications

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Refereed Publications:¹

95. Bassa, C. G., Tendulkar, S. P., Adams, E. A. K., Maddox, N., Bogdanov, S., Bower, G. C., Burke-Spolaor, S., Butler, B. J., **Chatterjee, S.**, Cordes, J. M., Hessels, J. W. T., Kaspi, V. M., Law, C. J., Marcote, B., Paragi, Z., Ransom, S. M., Scholz, P., Spitler, L. G., van Langevelde, H. J., "FRB 121102 is coincident with a star forming region in its host galaxy", *ApJL*, in press, arXiv:1705.07698, 2017.
94. Cordes, J. M., Wasserman, I., Hessels, J. W. T., Lazio, T. J. W., **Chatterjee, S.**, Wharton, R. S., "Lensing of Fast Radio Bursts by Plasma Structures in Host Galaxies", *ApJ*, **842**, 35, 2017.
93. Jones, M. L., et al. (24 authors, including **Chatterjee, S.**), "The NANOGrav Nine-year Data Set: Measurement and Analysis of Variations in Dispersion Measures", *ApJ*, **841**, 125, 2017.
92. Tendulkar, S. P., Bassa, C. G., Cordes, J. M., Bower, G. C., Law, C. J., **Chatterjee, S.**, et al. (24 authors), "The Host Galaxy and Redshift of the Repeating Fast Radio Burst FRB 121102", *ApJL*, **834**, L7, 2017.
91. Marcote, B., et al. (29 authors, including **Chatterjee, S.**), "The Repeating Fast Radio Burst FRB 121102 as Seen on Milliarcsecond Angular Scales", *ApJL*, **834**, L8, 2017.
90. **Chatterjee, S.**, Law, C. J., Wharton, R. S., et al. (25 authors), "A Direct Localization of a Fast Radio Burst and its Host", *Nature*, **541**, 58, 2017.
89. Lyne, A. G., et al. (36 authors, including **Chatterjee, S.**), "Timing of 29 Pulsars Discovered in the PALFA Survey", *ApJ*, **834**, 137, 2017.
88. Lyne, A. G., et al. (34 authors, including **Chatterjee, S.**), "Two Long-term Intermittent Pulsars Discovered in the PALFA Survey", *ApJ*, **834**, 72, 2017.
87. * Lam, M. T., Cordes, J. M., **Chatterjee, S.**, et al. (25 authors), "The NANOGrav Nine-year Data Set: Excess Noise in Millisecond Pulsar Arrival Times", *ApJ*, **834**, 35, 2017.
86. Stovall, K., et al. (35 authors, including **Chatterjee, S.**), "Timing of Five PALFA-discovered Millisecond Pulsars", *ApJ*, **833**, 192, 2016.
85. Scholz, P., Spitler, L. G., Hessels, J. W. T., **Chatterjee, S.**, et al. (24 authors), "The Repeating Fast Radio Burst FRB 121102: Multi-wavelength Observations and Additional Bursts", *ApJ*, **833**, 177, 2016.
84. * Chiti, A., **Chatterjee, S.**, Wharton, R., Cordes, J., Lazio, T. J. W., Kaplan, D. L., Bower, G. C., Croft, S., "Transient Events in Archival Very Large Array Observations of the Galactic Center", *ApJ*, **833**, 11, 2016.
83. Lazarus, P., et al. (32 authors, including **Chatterjee, S.**), "Einstein@Home Discovery of a Double Neutron Star Binary in the PALFA Survey", *ApJ*, **831**, 150, 2016.

¹Papers marked with * indicate student first-authors whose work I co-supervised

82. Deller, A. T., Vigeland, S. J., Kaplan, D. L., Goss, W. M., Brisken, W. F., **Chatterjee, S.**, Cordes, J. M., Janssen, G. H., Lazio, T. J. W., Petrov, L., Stappers, B. W., & Lyne, A., “Microarcsecond VLBI Pulsar Astrometry with PSR π : I. Two Binary Millisecond Pulsars with White Dwarf Companions”, *ApJ*, **828**, 8, 2016.
81. Abbott, B. P., et al. (1577 authors, including **Chatterjee, S.**), “Supplement: Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914”, *ApJS*, **225**, 8, 2016.
80. Abbott, B. P., et al. (1574 authors, including **Chatterjee, S.**), “Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914”, *ApJL*, **826**, L13, 2016.
79. Lentati, L., et al., (83 authors, including **Chatterjee, S.**) “From Spin Noise to Systematics: Stochastic Processes in the First International Pulsar Timing Array Data Release”, *MNRAS*, **458**, 2161, 2016.
78. Verbiest, J. P. W., et al. (92 authors, including **Chatterjee, S.**), “The International Pulsar Timing Array: First Data Release”, *MNRAS*, **458**, 1267, 2016.
77. * Lam, M. T., Cordes, J. M., **Chatterjee, S.**, Jones, M. L., McLaughlin, M. A., & Armstrong, J. W., “Systematic and Stochastic Variations in Pulsar Dispersion Measures”, *ApJ*, **821**, 66, 2016.
76. Arzoumanian, Z., et al. (NANOGrav Collaboration; 52 authors, including **Chatterjee, S.**), “The NANOGrav Nine-year Data Set: Limits on the Isotropic Stochastic Gravitational Wave Background”, *ApJ*, **821**, 13, 2016.
75. Spitler, L. G., Scholz, P., Hessels, J. W. T., Bogdanov, S., Brazier, A., Camilo, F., **Chatterjee, S.**, Cordes, J. M., Crawford, F., Deneva, J., Ferdman, R. D., Freire, P. C. C., Kaspi, V. M., Lazarus, P., Lynch, R., Madsen, E. C., McLaughlin, M. A., Patel, C., Ransom, S. M., Seymour, A., Stairs, I. H., Stappers, B. W., van Leeuwen, J., & Zhu, W. W., “A Repeating Fast Radio Burst”, *Nature*, **531**, 202, 2016.
74. * Lam, M. T., Cordes, J. M., **Chatterjee, S.**, et al. (24 authors), “The NANOGrav Nine-year Data Set: Noise Budget for Pulsar Arrival Times on Intraday Timescales”, *ApJ*, **819**, 155, 2016.
73. Levin, L., et al. (25 authors, including **Chatterjee, S.**) “The NANOGrav Nine-year Data Set: Monitoring Interstellar Scattering Delays”, *ApJ*, **818**, 166, 2016.
72. Arzoumanian, Z., et al. (NANOGrav Collaboration; 44 authors, including **Chatterjee, S.**), “The NANOGrav Nine-year Data Set: Observations, Arrival Time Measurements, and Analysis of 37 Millisecond Pulsars”, *ApJ*, **813**, 65, 2015.
71. Lazarus, P., et al. (34 authors, including **Chatterjee, S.**), “Arecibo Pulsar Survey Using ALFA. IV. Mock Spectrometer Data Analysis, Survey Sensitivity, and the Discovery of 40 Pulsars”, *ApJ*, **812**, 81, 2015.
70. Arzoumanian, Z., et al. (NANOGrav Collaboration; 43 authors, including **Chatterjee, S.**), “NANOGrav Constraints on Gravitational Wave Bursts with Memory”, *ApJ*, **810**, 150, 2015.
69. Knispel, B., et al. (40 authors, including **Chatterjee, S.**), “Einstein@Home Discovery of a PALFA Millisecond Pulsar in an Eccentric Binary Orbit”, *ApJ*, **806**, 140, 2015.
68. Kirsten, F., Vlemmings, W., Campbell, R. M., Kramer, M., & **Chatterjee, S.**, “Revisiting the birth locations of pulsars B1929+10, B2020+28, and B2021+51”, *A&A*, **577**, A111, 2015.
67. * Lam, M. T., Cordes, J. M., **Chatterjee, S.**, & Dolch, T., “Pulsar Timing Errors from Asynchronous Multi-frequency Sampling of Dispersion Measure Variations”, *ApJ*, **801**, 130, 2015.

66. Scholz, P., et al. (34 authors, including **Chatterjee, S.**), "Timing of Five Millisecond Pulsars Discovered in the PALFA Survey", *ApJ*, **800**, 123, 2015.
65. van Leeuwen, J., Kasian, L., Stairs, I. H., Lorimer, D. R., Camilo, F., **Chatterjee, S.**, Cognard, I., Desvignes, G., Freire, P. C. C., Janssen, G. H., Kramer, M., Lyne, A. G., Nice, D. J., Ransom, S. M., Stappers, B. W., & Weisberg, J. M., "The Binary Companion of Young, Relativistic Pulsar J1906+0746", *ApJ*, **798**, 118, 2015.
64. Arzoumanian, Z., et al. (The NANOGrav Collaboration; 40 authors, including **Chatterjee, S.**), "Gravitational Waves from Individual Supermassive Black Hole Binaries in Circular Orbits: Limits from the North American Nanohertz Observatory for Gravitational Waves", *ApJ*, **794**, 141, 2014.
63. Dolch, T. et al. (43 authors, including **Chatterjee, S.**), "A 24 Hr Global Campaign to Assess Precision Timing of the Millisecond Pulsar J1713+0747", *ApJ*, **794**, 21, 2014.
62. Spitler, L. G., et al. (33 authors, including **Chatterjee, S.**), "Fast Radio Burst Discovered in the Arecibo Pulsar ALFA Survey", *ApJ*, **790**, 101, 2014.
61. * Madison, D. R., Cordes, J. M., **Chatterjee, S.**, "Assessing Pulsar Timing Array Sensitivity to Gravitational Wave Bursts with Memory", *ApJ*, **788**, 141, 2014.
60. Swiggum, J. K., et al. (36 authors, including **Chatterjee, S.**), "Arecibo Pulsar Survey Using ALFA. III. Precursor Survey and Population Synthesis", *ApJ*, **787**, 137, 2014.
59. Lazio, J. W., Kimball, A., Barger, A. J., Brandt, W. N., **Chatterjee, S.**, Clarke, T. E., Condon, J. J., Dickman, R. L., Hunyh, M. T., Jarvis, M. J., Juric, M., Kassim, N. E., Myers, S. T., Nissanke, S., Osten, R., Zauderer, B. A., "Radio Astronomy in LSST Era", *PASP*, **126**, 196, 2014.
58. Zhu, W. W., et al. (44 authors, including **Chatterjee, S.**), "Searching for Pulsars Using Image Pattern Recognition", *ApJ*, **781**, 117, 2014.
57. Ransom, S., Stairs, I., Archibald, A., Hessels, J., Kaplan, D., van Kerkwijk, M. H., Boyles, J., Deller, A., **Chatterjee, S.**, Schechtman-Rook, A., Berndsen, A., Lynch, R., Lorimer, D., Karako-Argaman, C., Kaspi, V., Kondratiev, V., McLaughlin, M., van Leeuwen, J., Rosen, R., Roberts, M., Stovall, K., "A millisecond pulsar in a stellar triple system", *Nature*, **505**, 520, 2014.
56. Lazarus, P., Tauris, T. M., Knispel, B., Freire, P. C. C., Deneva, J. S., Kaspi, V. M., Allen, B., Bogdanov, S., **Chatterjee, S.**, Stairs, I. H., Zhu, W. W., "Timing of a young mildly recycled pulsar with a massive white dwarf companion", *MNRAS*, **437**, 1485, 2014.
55. * Madison, D. R., **Chatterjee, S.**, Cordes, J. M., "The Benefits of VLBI Astrometry to Pulsar Timing Array Searches for Gravitational Radiation", *ApJ*, **777**, 104, 2013.
54. Allen, B., et al. (46 authors, including **Chatterjee, S.**), "The Einstein@Home search for radio pulsars and PSR J2007+2722 discovery", *ApJ*, **773**, 91, 2013.
53. Lee, K. J., et al. (44 authors, including **Chatterjee, S.**), "PEACE: pulsar evaluation algorithm for candidate extraction - a software package for post-analysis processing of pulsar survey candidates", *MNRAS*, **433**, 688, 2013.
52. Nice, D. J., et al. (37 authors, including **Chatterjee, S.**), "Timing and Interstellar Scattering of Thirty-five Distant Pulsars Discovered in the PALFA Survey", *ApJ*, **772**, 50, 2013.

51. Bowman, J. D., et al. (61 authors, including **Chatterjee, S.**), “Science with the Murchison Widefield Array”, *PASA*, **30**, 31, 2013.
50. Murphy, T., **Chatterjee, S.**, Kaplan, D. L., et al. (39 authors), “VAST: An ASKAP Survey for Variables and Slow Transients”, *PASA*, **30**, 6, 2013.
49. Crawford, F., et al. (32 authors, including **Chatterjee, S.**), “Four Highly Dispersed Millisecond Pulsars Discovered in the Arecibo PALFA Galactic Plane Survey”, *ApJ*, **757**, 90, 2012.
48. Deneva, J. S., et al. (32 authors, including **Chatterjee, S.**), “Two Millisecond Pulsars Discovered by the PALFA Survey and a Shapiro Delay Measurement”, *ApJ*, **757**, 89, 2012.
47. Deller, A. T., Archibald, A. M., Brisken, W. F., **Chatterjee, S.**, Janssen, G. H., Kaspi, V. M., Lorimer, D., Lyne, A. G., McLaughlin, M. A., Ransom, S., Stairs, I. H., Stappers, B., “A parallax distance and mass estimate for the transitional millisecond pulsar system J1023+0038”, *ApJL*, **756**, 2, L25, 2012.
46. * Wharton, R. S., **Chatterjee, S.**, Cordes, J. M., Deneva, J. S., Lazio, T. J. W., “Multiwavelength Constraints on Pulsar Populations in the Galactic Center”, *ApJ*, **753**, 2-108, 2012
45. * Spitler, L., Cordes, J. M., **Chatterjee, S.**, & Stone, J., “Multimoment Radio Transient Detection”, *ApJ*, **748**, 73, 2012
44. Ng, C.-Y., Bucciantini, N., Gaensler, B. M., Camilo, F., **Chatterjee, S.**, & Bouchard, A., “An Extreme Pulsar Tail Protruding from the Frying Pan Supernova Remnant”, *ApJ*, **746**, 105, 2012
43. Camilo, F., Ransom, S. M., **Chatterjee, S.**, Johnston, S., & Demorest, P., “PSR J1841—0500: A Radio Pulsar That Mostly is Not There”, *ApJ*, **746**, 63, 2012
42. Knispel, B., et al. (38 authors, including **Chatterjee, S.**), “Arecibo PALFA Survey and Einstein@Home: Binary Pulsar Discovery by Volunteer Computing”, *ApJL*, **732**, L1–L5, 2011
41. * Bannister, K. W., Murphy, T., Gaensler, B. M., Hunstead, R. W., & **Chatterjee, S.**, “A 22-yr southern sky survey for transient and variable radio sources using the Molonglo Observatory Synthesis Telescope”, *MNRAS*, **412**, 634–664, 2011
40. Göğüş, E., Woods, P. M., Kouveliotou, C., Kaneko, Y., Gaensler, B. M., & **Chatterjee, S.**, “Spatial, Temporal, and Spectral Properties of X-ray Emission from the Magnetar SGR 0501+4516”, *ApJ*, **722**, 899–908, 2010
39. Knispel, B. et al. (41 authors, including **Chatterjee, S.**), “Pulsar Discovery by Global Volunteer Computing”, *Science*, **329**, 1305, 2010
38. Macquart, J.-P. et al. (38 authors, including **Chatterjee, S.**), “The Commensal Real-Time ASKAP Fast-Transients (CRAFT) Survey”, *PASA*, **27**, 272–282, 2010
37. Ng, C.-Y., Gaensler, B. M., **Chatterjee, S.**, & Johnston, S., “Radio Polarization Observations of G319.9–0.7: A Bow-Shock Nebula with an Azimuthal Magnetic Field Powered by Pulsar J1509–5850”, *ApJ*, **712**, 596–603, 2010
36. Kaplan, D. L., Esposito, P., **Chatterjee, S.**, Possenti, A., McLaughlin, M. A., Camilo, F., Chakrabarty, D., & Slane, P. O., “Upper Limits on X-ray Emission from Two Rotating Radio Transients”, *MNRAS*, **400**, 1445–1450, 2009

35. * Hales, C. A., Gaensler, B. M., **Chatterjee, S.**, van der Swaluw, E., & Camilo, F., "A Proper Motion for the Pulsar Wind Nebula G359.23–0.82, the 'Mouse', Associated with the Energetic Radio Pulsar J1747–2958", *ApJ*, **706**, 1316–1322, 2009
34. Camilo, F., Ng, C.-Y., Gaensler, B. M., Ransom, S. M., **Chatterjee, S.**, Reynolds, J., & Sarkissian, J. "Out of the Frying Pan: A Young Pulsar with a Long Radio Trail Emerging from SNR G315.9–0.0", *ApJL*, **703**, L55–L58, 2009
33. Rea, N., McLaughlin, M. A., Gaensler, B. M., Slane, P. O., Stella, L., Reynolds, S. P., Burgay, M., Israel, G. L., Possenti, A., & **Chatterjee, S.**, "Discovery of Extended X-Ray Emission Around the Highly Magnetic RRAT J1819–1458", *ApJL*, **703**, L41–L45, 2009
32. **Chatterjee, S.**, Brisken, W. F., Vlemmings, W. H. T., Goss, W. M., Lazio, T. J. W., Cordes, J. M., Thorsett, S. E., Fomalont, E. B., Lyne, A. G., & Kramer, M., "Precision Astrometry with the Very Long Baseline Array: Parallaxes and Proper Motions for 14 Pulsars", *ApJ*, **698**, 250–265, 2009
31. Kaplan, D. L., **Chatterjee, S.**, Hales, C. A., Gaensler, B. M., & Slane, P. O., "Constraining the Proper Motions of Two Magnetars", *AJ*, **137**, 354, 2009
30. Johnston, S. et al. (50 authors, including **Chatterjee, S.**), "Science with ASKAP. The Australian square-kilometre-array pathfinder", *Experimental Astronomy*, **22**, 151–273, 2008
29. Gaensler, B. M., Madsen, G. J., **Chatterjee, S.**, & Mao, S. A. "The Vertical Structure of Warm Ionised Gas in the Milky Way", *PASA*, **25**, 184, 2008
28. Murphy, T., Gaensler, B. M., & **Chatterjee, S.**, "A 20 Year Radio Light Curve for the Young Supernova Remnant G1.9+0.3", *MNRAS*, **389**, L23, 2008
27. Champion, D. J. et al. (31 authors, including **Chatterjee, S.**), "An eccentric binary millisecond pulsar in the Galactic Plane", *Science*, **320**, 1309, 2008
26. Kaplan, D. L., **Chatterjee, S.**, Gaensler, B. M., & Anderson, J., "A Precise Proper Motion for the Crab Pulsar, and the Difficulty of Testing Spin-Kick Alignment for Young Neutron Stars", *ApJ*, **677**, 1201, 2008
25. * Zeiger, B. R., Brisken, W. F., **Chatterjee, S.**, & Goss, W. M., "Proper Motions of PSRs B1757–24 and B1951+32: Implications for Ages and Associations", *ApJ*, **674**, 271, 2008
24. Johnston, S. et al. (50 authors, including **Chatterjee, S.**), "Science with the Australian Square Kilometre Array Pathfinder", *PASA*, **24**, 174, 2007
23. **Chatterjee, S.**, Gaensler, B. M., Melatos, A., Brisken, W. F., & Stappers, B. W., "Pulsed X-ray Emission from Pulsar A in the Double Pulsar System J0737–3039", *ApJ*, **670**, 1301, 2007
22. McLaughlin, M. A., Rea, N., Gaensler, B. M., **Chatterjee, S.**, Camilo, F., Kramer, M., Lorimer, D. R., Lyne, A. G., Israel, G. L., & Possenti, A., "Discovery of Pulsations and a Possible Spectral Feature in the X-ray Emission from Rotating Radio Transient J1819–1458", *ApJ*, **670**, 1307, 2007
21. Helfand, D. J., **Chatterjee, S.**, Brisken, W. F., Camilo, F., Reynolds, J., van Kerkwijk, M. H., Halpern, J. P., & Ransom, S. M., "VLBA measurement of the transverse velocity of the magnetar XTE J1810–197", *ApJ*, **662**, 1198, 2007
20. Ng, C.-Y., Romani, R. W., Brisken, W. F., **Chatterjee, S.**, & Kramer, M., "The Origin and Motion of PSR J0538+2817 in S147", *ApJ*, **654**, 487, 2007

19. * Vigelius, M., Melatos, A., **Chatterjee, S.**, Gaensler, B. M., & Ghavamian, P., "Three-dimensional hydrodynamic simulations of asymmetric pulsar wind bow shocks", *MNRAS*, **374**, 793, 2007
18. * Blazek, J. A., Gaensler, B. M., **Chatterjee, S.**, van der Swaluw, E., Camilo, F., & Stappers, B. W., "The Duck Redux: An Improved Proper-Motion Upper Limit for the Pulsar B1757–24 near the Supernova Remnant G5.4–1.2", *ApJ*, **652**, 1523, 2006
17. Gaensler, B. M., **Chatterjee, S.**, Slane, P. O., van der Swaluw, E., Camilo, F., & Hughes, J. P., "The X-ray Structure of the Pulsar Bow Shock G189.22+2.90 in the Supernova Remnant IC 443", *ApJ*, **648**, 1037, 2006
16. Lorimer, D. R. et al. (36 authors, including **Chatterjee, S.**), "Arecibo Pulsar Survey Using ALFA. II. The Young, Highly Relativistic Binary Pulsar J1906+07", *ApJ*, **640**, 428, 2006.
15. Reynolds, S. P., Borkowski, K. J., Gaensler, B. M., Rea, N., McLaughlin, M., Possenti, A., Israel, G., Burgay, M., Camilo, F., **Chatterjee, S.**, Kramer, M., Lyne, A. G. & Stairs, I., "Discovery of the X-ray Counterpart to the Rotating Radio Transient J1819–1458", *ApJL*, **639**, L71, 2006.
14. Cordes, J. M. et al. (24 authors, including **Chatterjee, S.**), "Arecibo Pulsar Survey Using ALFA. I. Survey Strategy and First Discoveries", *ApJ*, **637**, 446, 2006.
13. **Chatterjee, S.**, Goss, W. M., & Brisken, W. F., "Radio Emission from the Double Pulsar System J0737–3039 Revisited", *ApJL*, **634**, L101, 2005.
12. **Chatterjee, S.**, Vlemmings, W. H. T., Brisken, W. F., Lazio, T. J. W., Cordes, J. M., Goss, W. M., Thorsett, S. E., Fomalont, E. B., Lyne, A. G., & Kramer, M., "Getting its Kicks: A VLBA Parallax for the Hyperfast Pulsar B1508+55", *ApJL*, **630**, L61, 2005.
11. Moon, D.-S., Lee, J.-J., Eikenberry, S. S., Koo, B.-C., **Chatterjee, S.**, Kaplan, D. L., Hester, J. J., Cordes, J. M., Gallant, Y. A., & Koch-Miramond, L., "PSR B1951+32: A Bow Shock-confined X-Ray Nebula, a Synchrotron Knot, and an Optical Counterpart Candidate", *ApJL*, **610**, L33, 2004.
10. Vlemmings, W. H. T., Cordes, J. M., & **Chatterjee, S.**, "Separated at Birth: The Origin of the Pulsars B2020+28 and B2021+51 in the Cygnus Superbubble", *ApJ*, **610**, 402, 2004.
9. **Chatterjee, S.**, Cordes, J. M., Vlemmings, W. H. T., Arzoumanian, Z., Goss, W. M., & Lazio, T. J. W., "Pulsar Parallaxes at 5 GHz with the Very Long Baseline Array", *ApJ*, **604**, 339, 2004.
8. **Chatterjee, S.** & Cordes, J. M., "Smashing the Guitar: An Evolving Neutron Star Bow Shock", *ApJL*, **600**, L51, 2004.
7. Bhat, N. D. R., Cordes, J. M., & **Chatterjee, S.**, "A CLEAN-based Method for Deconvolving Interstellar Pulse Broadening from Radio Pulses", *ApJ*, **584**, 782, 2003.
6. Rothstein, D. M., Eikenberry, S. S., **Chatterjee, S.**, Egami, E., Djorgovski, S. G., & Heindl, W. A., "The Infrared Counterpart of the Microquasar GRS1758–258", *ApJL*, **580**, L61, 2002.
5. **Chatterjee, S.** & Cordes, J. M., "Bow Shocks from Neutron Stars: Scaling Laws and HST Observations of the Guitar Nebula", *ApJ*, **575**, 408, 2002.
4. **Chatterjee, S.**, Cordes, J. M., Lazio, T. J. W., Goss, W. M., Fomalont, E. B., & Benson, J. M., "Parallax and Kinematics of PSR B0919+06 from VLBA Astrometry and Interstellar Scintillometry", *ApJ*, **550**, 287, 2001.

3. Gaensler, B. M., Stappers, B. W., Frail, D. A., Moffett, D. A., Johnston, S., & Chatterjee, S., "Limits on Radio Emission from Pulsar Wind Nebulae", *MNRAS*, **318**, 58, 2000.
2. Fomalont, E. B., Goss, W. M., Beasley, A. J., & Chatterjee, S., "Sub-Milliarcsecond Precision of Pulsar Motions: Using In-Beam Calibrators with the VLBA", *AJ*, **117**, 3025, 1999.
1. Chatterjee, S., Bhat, K. N., & Rao, P. R. S., "The Effect of a Cap Layer on the Diffusion of Zinc from Doped Silica Films in Gallium Arsenide", *Solid State Electronics*, **41**, 496, 1997.

Scientific Memos and White Papers

- Chatterjee, S., Cordes, J. M., Wharton, R. S., Kaplan, D. L., Lazio, T. J. W., Crawford, F., Ransom, S., "Discovering Exotic Pulsars and Transients with VLASS and Time Domain Surveys", VLA Sky Survey Whitepaper², NRAO, 2014.
- Walker, R. C. & Chatterjee, S., "Ionospheric Corrections using GPS-based Models", VLBA Scientific Memo³ 23, NRAO, 1999.
- Chatterjee, S., "Recipes for low frequency VLBI Phase-Referencing and GPS Ionospheric Correction", VLBA Scientific Memo 22, NRAO, 1999.
- Chatterjee, S., "How Accurate is Phase Referencing at L-band? An Assessment", VLBA Scientific Memo 18, NRAO, 1999.

Selected Colloquia and Conference Talks:

- 2017 229th Meeting of the American Astronomical Society, Talk and Press Conference.
- 2016 Invited talk, "GR21: 21st Intl. Conf. on General Relativity and Gravitation", New York, NY.
- 2013 Invited talk, "Radio Astronomy in the LSST Era", Charlottesville, VA.
- 2012 Invited review, Distances to Neutron Stars, IAU Symposium 289, Beijing, China.
- 2011 Astronomy Colloquium, Pennsylvania State University.
- 2011 Invited talk, "Radio Astronomy and the ISM", Durango, CO.
- 2011 Invited talk, "Fab Five Fest", Arecibo, PR.
- 2010 Astronomy Colloquium, University of Vermont.
- 2009 Astronomy Colloquium, Cornell University.
- 2009 Astronomy Colloquium, Mt. Stromlo Observatory, The Australian National University.
- 2008 Astronomy Colloquium, CSIRO Australia Telescope National Facility.
- 2007 Invited Review on Neutron Star Astrometry, IAU Symposium 248, Shanghai, China.
- 2007 Physics Colloquium, The University of Sydney, Australia.
- 2007 Astronomy Colloquium, Australia Telescope National Facility, Sydney, Australia.
- 2006 27th Texas Symposium on Relativistic Astrophysics, Melbourne, Australia.
- 2006 36th COSPAR Scientific Assembly, Beijing, China.
- 2006 Astronomy Colloquium, Northwestern University, Chicago, IL.
- 2005 Astronomy Seminar, Rice University, Houston, TX.
- 2005 "A Life with Stars", Amsterdam, the Netherlands.

²<https://science.nrao.edu/science/surveys/vlass/vlass-white-papers>

³<http://www.aoc.nrao.edu/vlba/html/MEMOS/scimemos.html>

- 2005 Radio & Geo-astronomy Seminar, Harvard-Smithsonian Center for Astrophysics.
- 2005 Astronomy Lunch, Massachusetts Institute of Technology.
- 2005 Jansky Fellows Symposium, NRAO, Charlottesville, VA.
- 2004 35th COSPAR Scientific Assembly, Paris, France.
- 2004 "X-Ray and Radio Connections", Santa Fe, New Mexico.
- 2003 Astronomy Colloquium, NRAO, Green Bank, WV.
- 2003 Astronomy Colloquium, NRAO, Socorro, NM.
- 2002 NS/SNR Seminar, Harvard-Smithsonian Center for Astrophysics.
- 2002 Astronomy Colloquium, Cornell University.
- 2002 "Radio Pulsars: Crete 2002", Greece.
- 2002 TAPiR Group Seminar, California Institute of Technology.
- 2002 Astronomy Colloquium, NAIC, Arecibo, PR.
- 2001 Radio Astronomy Seminar, University of California, Berkeley.
- 2001 Astrophysics Seminar, Raman Research Institute, Bangalore, India.
- 2001 Astronomy Seminar, National Center for Radio Astronomy, Pune, India.
- 1999 Gravity Group Seminar, Princeton University.