

Curriculum Vitae - Dr. Paul B. Demorest

Contact Information

Address National Radio Astronomy Observatory
 520 Edgemont Road
 Charlottesville, VA 22903

Phone (434) 244 6838

Fax (434) 296 0278

Email pdemores@nrao.edu

Education

2002–2007 Ph.D., Physics, University of California, Berkeley.
 Dissertation: *Measuring the Gravitational Wave Background using Precision Pulsar Timing*. Advisor: Prof. Donald Backer.

2000–2002 M.A., Physics, University of California, Berkeley.

1996–2000 B.A., Physics, University of California, Berkeley.
 GPA: 3.8. Honors: High distinction in general scholarship.

Research Experience

2011–present Assistant Scientist, National Radio Astronomy Observatory,
 Charlottesville, VA.

2010–2011 Senior Research Associate, National Radio Astronomy Observatory,
 Charlottesville, VA.

2007–2010 Jansky Fellow, National Radio Astronomy Observatory,
 Charlottesville, VA.

2003–2007 Graduate Student Researcher, Astronomy Department, UC Berkeley.
 Supervisor: Prof. Donald Backer.

2001–2003 Graduate Student Researcher, Space Sciences Laboratory, UC Berkeley.
 Supervisor: Dr. Dan Werthimer.

Teaching Experience

- 2009–present Mentor, NRAO Research Experience for Undergraduates summer program.
- 2000–2002 Graduate Student Instructor, Advanced Undergraduate Lab (Physics 111), UC Berkeley. Supervisors: Profs. Sumner Davis, Joseph Orenstein, Roger Falcone, and James Siegrist.
- 2000–2004 Private tutoring in Physics, undergraduate and graduate level.

Meeting Organization

- 2013 SOC, NANOGrav Spring 2013 workshop, NRAO, Green Bank.
- 2012 SOC chair, NANOGrav Fall 2012 workshop, Oberlin.
- 2011 Local organizer, NANOGrav Fall 2011 workshop, NRAO, Charlottesville.
- 2010 Co-organizer, IPTA 2010: Detecting Gravitational Waves with Pulsars, Lorentz Center, Leiden, Netherlands.
- 2009 Main organizer, NANOGrav Fall 2009 Workshop, NRAO, Charlottesville.
- 2008–2009 Co-organizer, TUNA weekly lunch talk series, NRAO/UVa, Charlottesville.
- 2008 Local organizer, 2008 NRAO Postdoctoral Symposium, Charlottesville.
- 2007 Local organizer, North American Pulsar Timing Meeting, NRAO, Charlottesville.

Research Presentations

- 2014/01 AAS Meeting (Washington, DC)
- 2013/05 Neutron Star 2013 Symposium, invited (Amsterdam)
- 2013/01 Aspen Center for Physics, Pulsar Conference
- 2013/01 URSI National Radio Science Meeting (Boulder)
- 2012/11 Perimeter Institute Seminar (Toronto)
- 2012/09 University of Vermont Physics Colloquium
- 2012/06 IPTA 2012 Meeting (Sydney)
- 2012/01 URSI National Radio Science Meeting, invited (Boulder)
- 2011/09 NRAO Socorro Colloquium
- 2011/09 Washington University Physics Colloquium

2011/09 CITA Astrophysics Seminar (Toronto)
2011/06 IPTA 2011 Meeting (West Virginia)
2011/05 Pulsar Physics and Timing meeting, invited (Beijing)
2011/05 AAS NS/GW workshop, invited (Boston)
2011/04 APS April Meeting, invited (Anaheim)
2011/04 UC Santa Barbara Astrophysics Seminar
2011/04 Ohio University Astrophysics/INPP Seminar
2011/03 New Worlds, New Horizons meeting (Santa Fe)
2011/02 University of Maryland Astronomy Colloquium
2011/01 University of Pennsylvania Astrophysics and Cosmology Seminar
2011/01 AAS Meeting, invited (Seattle)
2010/11 UC Berkeley Radio Astronomy Laboratory Seminar
2010/10 NRAO TUNA Seminar (Charlottesville)
2010/10 Pulsar Conference 2010, invited (Sardinia)
2010/08 2010 CASPER Workshop (Cambridge)
2010/06 IPTA 2010 meeting (Leiden)
2010/01 URSI National Radio Science Meeting (Boulder)
2009/11 Johns Hopkins University CAS Seminar
2009/09 NRAO/UVa Colloquium (Charlottesville)
2009/06 8th Amaldi Conference (New York)
2009/03 ATNF Pulsar Lunch (Epping)
2009/03 Swinburne University CAS Colloquium (Melbourne)
2009/01 AAS Meeting (Long Beach)
2008/04 NRAO Socorro Colloquium
2007/07 URSI North American Meeting (Ottawa)

Charlottesville, VA, December 31, 2013

Refereed Publications

- [1] *The Angular Broadening of the Galactic Center Pulsar SGR J1745-29: A New Constraint on the Scattering Medium*
G. C. Bower, A. Deller, **P. B. Demorest**, A. Brunthaler, R. Eatough, H. Falcke, M. Kramer, K. J. Lee, and L. Spitler
Astrophysical Journal, 780:L2, January 2014.
arXiv:1309.4672
- [2] *Cyclic Spectroscopy of The Millisecond Pulsar, B1937+21*
M. A. Walker, **P. B. Demorest**, and W. van Straten
Astrophysical Journal, 779:99, December 2013.
arXiv:1310.3535
- [3] *Pulsar timing techniques*
A. N. Lommen and **P. B. Demorest**
Classical and Quantum Gravity, 30(22):224001, November 2013.
arXiv:1309.1767
- [4] *A strong magnetic field around the supermassive black hole at the centre of the Galaxy*
R. P. Eatough, H. Falcke, R. Karuppusamy, K. J. Lee, D. J. Champion, E. F. Keane, G. Desvignes, D. H. F. M. Schnitzeler, L. G. Spitler, M. Kramer, B. Klein, C. Bassa, G. C. Bower, A. Brunthaler, I. Cognard, A. T. Deller, **P. B. Demorest**, P. C. C. Freire, A. Kraus, A. G. Lyne, A. Noutsos, B. Stappers, and N. Wex
Nature, 501:391–394, September 2013.
arXiv:1308.3147
- [5] *The Einstein@Home Search for Radio Pulsars and PSR J2007+2722 Discovery*
B. Allen, B. Knispel, J. M. Cordes, J. S. Deneva, J. W. T. Hessels, D. Anderson, C. Aulbert, O. Bock, A. Brazier, S. Chatterjee, **P. B. Demorest**, H. B. Eggenstein, H. Fehrmann, E. V. Gotthelf, D. Hammer, V. M. Kaspi, M. Kramer, A. G. Lyne, B. Machenschalk, M. A. McLaughlin, C. Messenger, H. J. Pletsch, S. M. Ransom, I. H. Stairs, B. W. Stappers, N. D. R. Bhat, S. Bogdanov, F. Camilo, D. J. Champion, F. Crawford, G. Desvignes, P. C. C. Freire, G. Heald, F. A. Jenet, P. Lazarus, K. J. Lee, J. van Leeuwen, R. Lynch, M. A. Papa, R. Prix, R. Rosen, P. Scholz, X. Siemens, K. Stovall, A. Venkataraman, and W. Zhu
Astrophysical Journal, 773:91, August 2013.
arXiv:1303.0028
- [6] *A 1.1-1.9 GHz SETI Survey of the Kepler Field. I. A Search for Narrow-band Emission from Select Targets*
A. P. V. Siemion, **P. B. Demorest**, E. Korpela, R. J. Maddalena, D. Werthimer, J. Cobb, A. W. Howard, G. Langston, M. Lebofsky, G. W. Marcy, and J. Tarter

- Astrophysical Journal*, 767:94, April 2013.
arXiv:1302.0845
- [7] *Astropulse: A Search for Microsecond Transient Radio Signals Using Distributed Computing. I. Methodology*
J. Von Korff, **P. B. Demorest**, E. Heien, E. Korpela, D. Werthimer, J. Cobb, M. Lebofsky, D. Anderson, B. Bankay, and A. Siemion
Astrophysical Journal, 767:40, April 2013.
arXiv:1211.1338
- [8] *Improving the precision of pulsar timing through polarization statistics*
S. Osłowski, W. van Straten, **P. B. Demorest**, and M. Bailes
MNRAS, 430:416–424, March 2013.
arXiv:1301.2374
- [9] *Limits on the Stochastic Gravitational Wave Background from the North American Nanohertz Observatory for Gravitational Waves*
P. B. Demorest, R. D. Ferdman, M. E. Gonzalez, D. Nice, S. Ransom, I. H. Stairs, Z. Arzoumanian, A. Brazier, S. Burke-Spolaor, S. J. Chamberlin, J. M. Cordes, J. Ellis, L. S. Finn, P. Freire, S. Giampanis, F. Jenet, V. M. Kaspi, J. Lazio, A. N. Lommen, M. McLaughlin, N. Palliyaguru, D. Perrodin, R. M. Shannon, X. Siemens, D. Stinebring, J. Swiggum, and W. W. Zhu
Astrophysical Journal, 762:94, January 2013.
arXiv:1201.6641
- [10] *Constraining the Vela Pulsar’s Radio Emission Region Using Nyquist-limited Scintillation Statistics*
M. D. Johnson, C. R. Gwinn, and **P. B. Demorest**
Astrophysical Journal, 758:8, October 2012.
arXiv:1208.5485
- [11] *Pulsar Data Analysis with PSRCHIVE*
W. van Straten, **P. B. Demorest**, and S. Osłowski
Astronomical Research and Technology, 9:237–256, July 2012.
arXiv:1205.6276
- [12] *PSR J1841–0500: A Radio Pulsar That Mostly is Not There*
F. Camilo, S. M. Ransom, S. Chatterjee, S. Johnston, and **P. B. Demorest**
Astrophysical Journal, 746:63, February 2012.
arXiv:1111.5870
- [13] *High signal-to-noise ratio observations and the ultimate limits of precision pulsar timing*
S. Osłowski, W. van Straten, G. B. Hobbs, M. Bailes, and **P. B. Demorest**

- MNRAS, 418:1258–1271, December 2011.
arXiv:1108.0812
- [14] *High-precision Timing of Five Millisecond Pulsars: Space Velocities, Binary Evolution, and Equivalence Principles*
M. E. Gonzalez, I. H. Stairs, R. D. Ferdman, P. C. C. Freire, D. J. Nice, **P. B. Demorest**, S. M. Ransom, M. Kramer, F. Camilo, G. Hobbs, R. N. Manchester, and A. G. Lyne
Astrophysical Journal, 743:102, December 2011.
arXiv:1109.5638
- [15] *Cyclic spectral analysis of radio pulsars*
P. B. Demorest
MNRAS, 416:2821–2826, October 2011.
arXiv:1106.3345
- [16] *A Bayesian parameter estimation approach to pulsar time-of-arrival analysis*
C. Messenger, A. Lommen, **P. B. Demorest**, and S. Ransom
Classical and Quantum Gravity, 28(5):055001, March 2011.
arXiv:1103.0518
- [17] *A Quantitative Model for Drifting Subpulses in PSR B0809+74*
R. Rosen and **P. B. Demorest**
Astrophysical Journal, 728:156, February 2011.
arXiv:1012.6020
- [18] *The Massive Pulsar PSR J1614–2230: Linking Quantum Chromodynamics, Gamma-ray Bursts, and Gravitational Wave Astronomy*
F. Özel, D. Psaltis, S. Ransom, **P. B. Demorest**, and M. Alford
Astrophysical Journal, 724:L199–L202, December 2010.
arXiv:1010.5790
- [19] *A two-solar-mass neutron star measured using Shapiro delay*
P. B. Demorest, T. Pennucci, S. M. Ransom, M. S. E. Roberts, and J. W. T. Hessels
Nature, 467:1081–1083, October 2010.
arXiv:1010.5788
- [20] *Pulsar Discovery by Global Volunteer Computing*
B. Knispel, B. Allen, J. M. Cordes, J. S. Deneva, D. Anderson, C. Aulbert, N. D. R. Bhat, O. Bock, S. Bogdanov, A. Brazier, F. Camilo, D. J. Champion, S. Chatterjee, F. Crawford, **P. B. Demorest**, H. Fehrmann, P. C. C. Freire, M. E. Gonzalez, D. Hammer, J. W. T. Hessels, F. A. Jenet, L. Kasian, V. M. Kaspi, M. Kramer, P. Lazarus, J. van Leeuwen, D. R. Lorimer, A. G. Lyne, B. Machenschalk, M. A. McLaughlin, C. Messenger, D. J. Nice, M. A. Papa, H. J. Pletsch, R. Prix, S. M. Ransom, X. Siemens, I. H.

- Stairs, B. W. Stappers, K. Stovall, and A. Venkataraman
Science, 329:1305–, September 2010.
arXiv:1008.2172
- [21] *Measuring the Mass of Solar System Planets Using Pulsar Timing*
D. J. Champion, G. B. Hobbs, R. N. Manchester, R. T. Edwards, D. C. Backer, M. Bailes,
N. D. R. Bhat, S. Burke-Spolaor, W. Coles, **P. B. Demorest**, R. D. Ferdman, W. M.
Folkner, A. W. Hotan, M. Kramer, A. N. Lommen, D. J. Nice, M. B. Purver, J. M.
Sarkissian, I. H. Stairs, W. van Straten, J. P. W. Verbiest, and D. R. B. Yardley
Astrophysical Journal, 720:L201–L205, September 2010.
arXiv:1008.3607
- [22] *Rotational asymmetry of pulsar profiles*
J. Dyks, G. A. E. Wright, and **P. B. Demorest**
MNRAS, 405:509–519, June 2010.
arXiv:0911.3798
- [23] *The International Pulsar Timing Array project: using pulsars as a gravitational wave detector*
G. Hobbs, A. Archibald, Z. Arzoumanian, D. Backer, M. Bailes, N. D. R. Bhat, M. Burgay,
S. Burke-Spolaor, D. Champion, I. Cognard, W. Coles, J. Cordes, **P. B. Demorest**,
G. Desvignes, R. D. Ferdman, L. Finn, P. Freire, M. Gonzalez, J. Hessels, A. Hotan,
G. Janssen, F. Jenet, A. Jessner, C. Jordan, V. Kaspi, M. Kramer, V. Kondratiev,
J. Lazio, K. Lazaridis, K. J. Lee, Y. Levin, A. Lommen, D. Lorimer, R. Lynch, A. Lyne,
R. Manchester, M. McLaughlin, D. Nice, S. Osłowski, M. Pilia, A. Possenti, M. Purver,
S. Ransom, J. Reynolds, S. Sanidas, J. Sarkissian, A. Sesana, R. Shannon, X. Siemens,
I. Stairs, B. Stappers, D. Stinebring, G. Theureau, R. van Haasteren, W. van Straten,
J. P. W. Verbiest, D. R. B. Yardley, and X. P. You
Classical and Quantum Gravity, 27(8):084013, April 2010.
arXiv:0911.5206
- [24] *A Precise Mass Measurement of the Intermediate-Mass Binary Pulsar PSR J1802–2124*
R. D. Ferdman, I. H. Stairs, M. Kramer, M. A. McLaughlin, D. R. Lorimer, D. J. Nice,
R. N. Manchester, G. Hobbs, A. G. Lyne, F. Camilo, A. Possenti, **P. B. Demorest**,
I. Cognard, G. Desvignes, G. Theureau, A. Faulkner, and D. C. Backer
Astrophysical Journal, 711:764–771, March 2010.
arXiv:1002.0514
- [25] *The nature of pulsar radio emission*
J. Dyks, B. Rudak, and **P. B. Demorest**
MNRAS, 401:1781–1795, January 2010.
arXiv:0908.1359

- [26] *Gravitational-wave detection via radio-pulsar timing*
P. B. Demorest, J. Lazio, and A. Lommen
Physics Today, 63(1):010000, 2010.
- [27] *Radio Detection of LAT PSRs J1741-2054 and J2032+4127: No Longer Just Gamma-ray Pulsars*
F. Camilo, P. S. Ray, S. M. Ransom, M. Burgay, T. J. Johnson, M. Kerr, E. V. Gotthelf, J. P. Halpern, J. Reynolds, R. W. Romani, **P. B. Demorest**, S. Johnston, W. van Straten, P. M. Saz Parkinson, M. Ziegler, M. Dormody, D. J. Thompson, D. A. Smith, A. K. Harding, A. A. Abdo, F. Crawford, P. C. C. Freire, M. Keith, M. Kramer, M. S. E. Roberts, P. Weltevrede, and K. S. Wood
Astrophysical Journal, 705:1–13, November 2009.
arXiv:0908.2626
- [28] *Pulsed Gamma-rays from PSR J2021+3651 with the Fermi Large Area Telescope*
A. A. Abdo, M. Ackermann, M. Ajello, W. B. Atwood, L. Baldini, J. Ballet, G. Barbiellini, D. Bastieri, M. Battelino, B. M. Baughman, K. Bechtol, R. Bellazzini, B. Berenji, E. D. Bloom, G. Bogaert, A. W. Borgland, J. Bregeon, A. Brez, M. Brigida, P. Bruel, T. H. Burnett, G. A. Caliandro, R. A. Cameron, F. Camilo, P. A. Caraveo, J. M. Casandjian, C. Cecchi, E. Charles, A. Chekhtman, A. W. Chen, C. C. Cheung, J. Chiang, S. Ciprini, I. Cognard, J. Cohen-Tanugi, L. R. Cominsky, J. Conrad, S. Cutini, **P. B. Demorest**, C. D. Dermer, A. de Angelis, A. de Luca, F. de Palma, S. W. Digel, M. Dormody, E. do Couto e Silva, P. S. Drell, R. Dubois, D. Dumora, C. Espinoza, C. Farnier, C. Favuzzi, W. B. Focke, M. Frailis, P. C. C. Freire, Y. Fukazawa, S. Funk, P. Fusco, F. Gargano, D. Gasparri, N. Gehrels, S. Germani, B. Giebels, N. Giglietto, F. Giordano, T. Glanzman, G. Godfrey, I. A. Grenier, M.-H. Grondin, J. E. Grove, L. Guillemot, S. Guiriec, Y. Hanabata, A. K. Harding, M. Hayashida, E. Hays, R. E. Hughes, G. Jóhannesson, A. S. Johnson, R. P. Johnson, T. J. Johnson, W. N. Johnson, S. Johnston, T. Kamae, H. Katagiri, J. Kataoka, N. Kawai, M. Kerr, B. Kiziltan, J. Knödseder, N. Komin, M. Kramer, F. Kuehn, M. Kuss, J. Lande, L. Latronico, S.-H. Lee, M. Lemoine-Goumard, F. Longo, F. Loparco, B. Lott, M. N. Lovellette, P. Lubrano, A. G. Lyne, A. Makeev, R. N. Manchester, M. Marelli, M. N. Mazziotta, W. McConville, J. E. McEnery, M. A. McLaughlin, C. Meurer, P. F. Michelson, W. Mitthumsiri, T. Mizuno, A. A. Moiseev, C. Monte, M. E. Monzani, A. Morselli, I. V. Moskalenko, S. Murgia, P. L. Nolan, A. Noutsos, E. Nuss, T. Ohsugi, N. Omodei, E. Orlando, J. F. Ormes, M. Ozaki, D. Paneque, J. H. Panetta, D. Parent, M. Pepe, M. Pesce-Rollins, F. Piron, T. A. Porter, S. Rainò, R. Rando, S. M. Ransom, M. Razzano, A. Reimer, O. Reimer, T. Reposeur, S. Ritz, L. S. Rochester, A. Y. Rodriguez, R. W. Romani, F. Ryde, H. F.-W. Sadrozinski, D. Sanchez, P. M. S. Parkinson, C. Sgrò, A. Sierpowska-Bartosik, E. J. Siskind, D. A. Smith, P. D. Smith, G. Spandre, P. Spinelli, B. W. Stappers, J.-L. Starck, M. S. Strickman, D. J. Suson, H. Tajima, H. Takahashi, T. Takahashi, T. Tanaka, J. B. Thayer, J. G. Thayer, G. Theureau, D. J. Thompson, S. E. Thorsett,

- L. Tibaldo, D. F. Torres, G. Tosti, A. Tramacere, Y. Uchiyama, T. L. Usher, A. Van Etten, N. Vilchez, V. Vitale, A. P. Waite, E. Wallace, K. Watters, P. Weltevrede, K. S. Wood, T. Ylinen, and M. Ziegler
Astrophysical Journal, 700:1059–1066, August 2009.
arXiv:0905.4400
- [29] *Polarization Observations of 100 Pulsars at 774 MHz by the Green Bank Telescope*
J. L. Han, **P. B. Demorest**, W. van Straten, and A. G. Lyne
Astrophysical Journal Supplement, 181:557–571, April 2009.
arXiv:0901.0962
- [30] *Measuring the gravitational wave background using precision pulsar timing*
P. B. Demorest
PhD thesis, University of California, Berkeley, 2007.
- [31] *The Magnetar XTE J1810-197: Variations in Torque, Radio Flux Density, and Pulse Profile Morphology*
F. Camilo, I. Cognard, S. M. Ransom, J. P. Halpern, J. Reynolds, N. Zimmerman, E. V. Gotthelf, D. J. Helfand, **P. B. Demorest**, G. Theureau, and D. C. Backer
Astrophysical Journal, 663:497–504, July 2007.
astro-ph/0610685
- [32] *Radio pulsars and transients in the Galactic center*
J. Lazio, J. S. Deneva, G. C. Bower, J. M. Cordes, S. D. Hyman, D. C. Backer, R. Bhat, S. Chatterjee, **P. B. Demorest**, S. M. Ransom, and W. Vlemmings
Journal of Physics Conference Series, 54:110–114, December 2006.
- [33] *Interstellar Plasma Weather Effects in Long-Term Multifrequency Timing of Pulsar B1937+21*
R. Ramachandran, **P. B. Demorest**, D. C. Backer, I. Cognard, and A. Lommen
Astrophysical Journal, 645:303–313, July 2006.
astro-ph/0601242
- [34] *Orientations of Spin and Magnetic Dipole Axes of Pulsars in the J0737-3039 Binary Based on Polarimetry Observations at the Green Bank Telescope*
P. B. Demorest, R. Ramachandran, D. C. Backer, S. M. Ransom, V. Kaspi, J. Arons, and A. Spitkovsky
Astrophysical Journal, 615:L137–L140, November 2004.
astro-ph/0402025
- [35] *Green Bank Telescope Observations of the Eclipse of Pulsar “A” in the Double Pulsar Binary PSR J0737-3039*
V. M. Kaspi, S. M. Ransom, D. C. Backer, R. Ramachandran, **P. B. Demorest**, J. Arons,

and A. Spitkovsky
Astrophysical Journal, 613:L137–L140, October 2004.
astro-ph/0401614

- [36] *Green Bank Telescope Measurement of the Systemic Velocity of the Double Pulsar Binary J0737-3039 and Implications for Its Formation*
S. M. Ransom, V. M. Kaspi, R. Ramachandran, **P. B. Demorest**, D. C. Backer, E. D. Pfahl, F. D. Ghigo, and D. L. Kaplan
Astrophysical Journal, 609:L71–L74, July 2004.
astro-ph/0404149

Conference Proceedings

- [1] *A search for pulsars in the central parsecs of the Galactic center*
A. Siemion, M. Bailes, G. Bower, J. Chennamangalam, J. Cordes, **P. B. Demorest**, J. Deneva, G. Desvignes, J. Ford, D. Frail, G. Jones, M. Kramer, J. Lazio, D. Lorimer, M. McLaughlin, S. Ransom, A. Roshi, M. Wagner, D. Werthimer, and R. Wharton
In *IAU Symposium*, volume 291 of *IAU Symposium*, pages 57–57, March 2013.
- [2] *Advanced Multi-beam Spectrometer for the Green Bank Telescope*
D. Anish Roshi, M. Bloss, P. Brandt, S. Bussa, H. Chen, **P. B. Demorest**, G. Desvignes, T. Filiba, R. J. Fisher, J. Ford, D. Frayer, R. Garwood, S. Gowda, G. Jones, B. Mallard, J. Masters, R. McCullough, G. Molera, K. O’Neil, J. Ray, S. Scott, A. Shelton, A. Siemion, M. Wagner, G. Watts, D. Werthimer, and M. Whitehead
ArXiv e-prints, February 2012.
arXiv:1202.0938
- [3] *The $1.97 \pm 0.04 M_{\text{solar}}$ Pulsar J1614-2230*
T. Pennucci, **P. B. Demorest**, S. M. Ransom, M. S. E. Roberts, and J. W. T. Hessels
In M. Burgay, N. D’Amico, P. Esposito, A. Pellizzoni, and A. Possenti, editors, *American Institute of Physics Conference Series*, volume 1357 of *American Institute of Physics Conference Series*, pages 353–354, August 2011.
- [4] *Measuring the mass of solar system planets using pulsar timing*
D. J. Champion, G. B. Hobbs, R. N. Manchester, R. T. Edwards, D. C. Backer, M. Bailes, N. D. R. Bhat, S. Burke-Spolaor, W. Coles, **P. B. Demorest**, R. D. Ferdman, W. M. Folkner, A. W. Hotan, M. Kramer, A. N. Lommen, D. J. Nice, M. B. Purver, J. M. Sarkissian, I. H. Stairs, W. van Straten, J. P. W. Verbiest, and D. R. B. Yardley
In M. Burgay, N. D’Amico, P. Esposito, A. Pellizzoni, and A. Possenti, editors, *American Institute of Physics Conference Series*, volume 1357 of *American Institute of Physics Conference Series*, pages 93–96, August 2011.

- [5] *Advances in understanding double features in radio pulsar profiles*
J. Dyks, B. Rudak, and **P. B. Demorest**
In D. F. Torres and N. Rea, editors, *High-Energy Emission from Pulsars and their Systems*, page 75, 2011.
- [6] *Heterogeneous real-time computing in radio astronomy*
J. M. Ford, **P. B. Demorest**, and S. Ransom
In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, volume 7740 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, July 2010.
- [7] *Wideband Pulsar Instrumentation at Green Bank*
J. Ford, P. Brandt, G. Langston, R. McCullough, J. Ray, **P. B. Demorest**, R. Duplain, and S. Ransom
In *2009 USNC/URSI Annual Meeting*, January 2009.
- [8] *Gravitational Wave Astronomy Using Pulsars: Massive Black Hole Mergers & the Early Universe*
P. B. Demorest, J. Lazio, A. Lommen, A. Archibald, Z. Arzoumanian, D. Backer, J. Cordes, R. Ferdman, P. Freire, M. Gonzalez, R. Jenet, V. Kaspi, V. Kondratiev, D. Lorimer, R. Lynch, M. McLaughlin, D. Nice, S. Ransom, R. Shannon, X. Siemens, I. Stairs, D. Stinebring, D. Reitze, D. Shoemaker, S. Whitcomb, and R. Weiss
In *astro2010: The Astronomy and Astrophysics Decadal Survey*, volume 2010 of *ArXiv Astrophysics e-prints*, page 64, 2009.
arXiv:0902.2968
- [9] *Launching GUPPI: the Green Bank Ultimate Pulsar Processing Instrument*
R. DuPlain, S. Ransom, **P. B. Demorest**, P. Brandt, J. Ford, and A. L. Shelton
In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, volume 7019 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, August 2008.
- [10] *Gravitational-Wave Astronomy with a Pulsar Timing Array*
D. C. Backer and **P. B. Demorest**
In A. H. Bridle, J. J. Condon, and G. C. Hunt, editors, *Frontiers of Astrophysics: A Celebration of NRAO's 50th Anniversary*, volume 395 of *Astronomical Society of the Pacific Conference Series*, page 261, August 2008.
- [11] *X-ray and Radio Timing of PSR B1821-24*
P. S. Ray, M. T. Wolff, **P. B. Demorest**, I. Cognard, D. C. Backer, and K. S. Wood
In C. Bassa, Z. Wang, A. Cumming, and V. M. Kaspi, editors, *40 Years of Pulsars: Millisecond Pulsars, Magnetars and More*, volume 983 of *American Institute of Physics Conference Series*, pages 157–159, February 2008.

- [12] *GBT Exploratory Time Observations of the Double-Pulsar System PSR J0737-3039*
S. Ransom, **P. B. Demorest**, V. Kaspi, R. Ramachandran, and D. Backer
In F. A. Rasio and I. H. Stairs, editors, *Binary Radio Pulsars*, volume 328 of *Astronomical Society of the Pacific Conference Series*, page 73, July 2005.
astro-ph/0404341
- [13] *Latest Results of the SETHI Survey at Arecibo*
E. J. Korpela, **P. B. Demorest**, E. Heien, C. Heiles, and D. Werthimer
In E. J. Alfaro, E. Pérez, and J. Franco, editors, *How Does the Galaxy Work?*, volume 315 of *Astrophysics and Space Science Library*, page 97, October 2004.
- [14] *A New Search for μ s Time Scale Radio Pulses*
P. B. Demorest, D. Werthimer, D. Anderson, A. Golden, and R. Ekers
In R. Norris and F. Stootman, editors, *Bioastronomy 2002: Life Among the Stars*, volume 213 of *IAU Symposium*, page 479, June 2004.
- [15] *Three Years of SETI@home: A Status Report*
E. J. Korpela, J. Cobb, S. Fulton, M. Lebofsky, E. Heien, E. Person, **P. B. Demorest**, R. Bankay, D. Anderson, and D. Werthimer
In R. Norris and F. Stootman, editors, *Bioastronomy 2002: Life Among the Stars*, volume 213 of *IAU Symposium*, page 419, June 2004.
- [16] *Serendipitous Detection of Radio Pulses from Evaporating Black Holes, GRBs and Extragalactic Supernova Using SETI@home*
P. B. Demorest, A. Golden, E. Korpela, D. Werthimer, and R. Ekers
In P. A. Shaver, L. Dilella, and A. Giménez, editors, *Astronomy, Cosmology and Fundamental Physics*, page 436, 2003.
- [17] *SETHI@Berkeley- A Piggyback 21-cm Sky Survey at Arecibo*
E. J. Korpela, **P. B. Demorest**, E. Heien, C. Heiles, and D. Werthimer
In A. R. Taylor, T. L. Landecker, and A. G. Willis, editors, *Seeing Through the Dust: The Detection of HI and the Exploration of the ISM in Galaxies*, volume 276 of *Astronomical Society of the Pacific Conference Series*, page 100, December 2002.
astro-ph/0112300