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**CURRICULUM VITÆ****Donald C. Backer**

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**Birth:**

1943 November 9 – Plainfield, NJ, USA

**Professional Preparation:**

B.S.E.P., Cornell University, 1966

M.Sc., University of Manchester, 1968

Ph.D., Cornell University, 1971

**Appointments:**

Professor, Department of Astronomy, 1989-present

Research Astronomer, Radio Astronomy Laboratory,  
1975–present

Acting Chair, Dept. of Astronomy, 1998-1999

Vice Chair, 1999-2001; Chair, 2002-2006

**Address:**

Astronomy Department

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**Memberships:**

American Astronomical Society (AAS)

International Scientific Radio Union (URSI)

International Astronomical Union (IAU)

**Recent Awards:**

2003 Jansky Lecturer, NRAO

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**LIST OF RECENT PUBLICATIONS**

- D. C. Backer & R. A. Sramek “Proper Motion of the Compact, Nonthermal Radio Source in the Galactic Center, Sagittarius A\*” 1999, *ApJ*, **524**, 805.
- D.C. Backer, T. Wong, & J. Valanju “A Plasma Prism Model for an Anomalous Dispersion Event in the Crab Pulsar” 2000, *ApJ*, **543**, 740.
- A.N. Lommen & D.C. Backer “Using Pulsars to Detect Massive Black Hole Binaries via Gravitational Radiation: Sagittarius A\* and Nearby Galaxies” 2001, *ApJ*, **562**, 297.
- G.C. Bower, H. Falcke, R.J. Sault & D.C. Backer “The Spectrum and Variability of Circular Polarization in Sagittarius A\* from 1.4 to 15 GHz” 2002, *ApJ*, **571**, 843.
- B.D.G. Chandran & D.C. Backer “Radio-Wave Propagation Through a Medium Containing Electron-Density Fluctuations Described by an Anisotropic Goldreich-Sridhar Spectrum” 2002, *ApJ*, **576**, 176.
- G.C. Bower, M.C.H. Wright, H. Falcke, & D.C. Backer “Interferometric Detection of Linear Polarization from Sagittarius A\* at 230 GHz” 2003, *ApJ*, **588**, 331.
- A.H. Jaffe & D.C. Backer “Gravitational Waves Probe the Coalescence Rate of Massive Black Holes” 2003, *ApJ*, **583**, 616.
- P. Demorest et al. “Orientations of Spin and Magnetic Dipole Axes of Pulsars in the J0737-3039 Binary Based on Polarimetry Observations at the Green Bank Telescope” 2004, *ApJ*, **615**, L137.
- E.M. Splaver, et al. “Masses, Parallax, and Relativistic Timing of the PSR J1713+0747 Binary System” 2005, *ApJ*, **620**, 405.
- R. Ramachandran, P. Demorest, D. C. Backer, I. Cognard & A. Lommen “Interstellar Plasma Weather Effects in Long-Term Multifrequency Timing of Pulsar B1937+21” 2006, *ApJ*, **645**, 303.

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**SYNERGISTIC ACTIVITIES****Recent Professional Service:**

NRAO User’s Committee, 1995–1997; Chair 1997

URSI/USNC Commission J, Chair 1997-1999

NAIC Visiting Committee, 1999-2001, Chair 2001

NRAO Program Advisory Committee, 1999-2005

NAS/NRC Committee on Radio Frequencies,

Chair 2001-2003

NAS/NRC Committee on Astron. &amp; Astrophys.

2004-

NSF Senior Review Panel 2005-2006

**Meetings (co-)organized:**

Texas Symposium, 1996 Chicago : PSR Session

URSI/USNC Commission J, 1997 Montreal;

1998, 1999 Boulder

Work-Shop on Pulsar Instrumentation:

1998 Dec &amp; Jan, Berkeley

Revealing the Molecular Universe:

(Jack Welch Retirement)

2005 Sep, Berkeley

## COLLABORATORS, STUDENTS, ADVISORS

*My principal collaborators over the past 10 y have been:* S. Anderson, J. Arons, W. Becker, G. Bower, R. Bradley, F. Camilo, B. Chandran, J. Cordes, S. Doeleman, H. Falcke, A. Jaffe, V. Kaspi, M. Kramer, S. Kulkarni, A. Lyne, D. Nice, R. Ramachandran, S. Ramson, A. Rogers, R. Sramek, I. Stairs, Z. Arzoumanian

*Graduate students – recent, past & present:* Geoffrey Bower, Paul Demorest, Roger Foster, Andrea Lommen, Aaron Parsons, Shauna Sallmen, & Tony Wong.

*Postdocs & research scientists:* A. Fruchter & A. Zepka; Long term visitor: M. Kramer, Otto Hahn Fellowship (1997-1998); I. Cognard (2001); R. Ramachandran (2002-05)

*My graduate supervisors were:* M. Sc. – H. P. Palmer (Manchester; dec.), and Ph.D. – F. D. Drake (Cornell). *My postdoctoral supervisors were:* D. S. Heeschen (NRAO) and T. A. Clark (NASA/GSFC).

## UNIVERSITY SERVICE

L&S Executive Committee

Campbell Replacement Committee (M. Richards) – 1999-2000

Campbell Replacement Committee (Webster I) – 2000-2001

Campbell Replacement Committee (Webster II) – 2002-2003

Campbell Replacement Committee – Summer 2005

Campbell Replacement Committee (Koshland) – 2005-2006

Physics Space Planning Committee (P. Richards) – 2003-04

PS Dean's Cosmology Initiative Committee, Chair – 2004

Acting Chair, Department of Astronomy – 1998-1999

Chair, Department of Astronomy – 2002-2006

Radio Astronomy Laboratory Advisory Committee – 1980-present

Allen Telescope Array Board – 2005-present

Berkeley Astrophysics & Cosmology Institute – executive committee – 2005-present

Center for Astronomical Signal Processing & Engineering Research – founding member – 2005-present