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# SAMPLE CV: TEACHING FOCUS

GSAS Career Services note: Compare this teaching-focused CV with the same person's research-focused CV in the previous sample. Note what information she has selectively included in each, and the order in which she presents it. Here she adds detailed information on teaching, teaching interests, and community service/activities. We recommend placing all dates to the left throughout.

# Sarah Jane Dormann

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#### **Educational Background**

- Ph.D. University of Virginia, Astronomy Department, Charlottesville, VA Jan. 2007 Dissertation "Knowing Our Neighbors: Fundamental Properties of Nearby Stars" Adviser Joe Good Guy
- M.S. University of Virginia, Astronomy Department, Charlottesville, VA 2001 Thesis "A Barnard's Star Perturbation Search Using McCormick Observatory Photographic Plate Material" Adviser Joe Good Guy
- B.S. Rensselaer Polytechnic Institute, Physics Department, Troy, NY 1990 Senior project "Tomography of Near Spherical Objects" Director John Doe

#### **Research Interests**

#### **Dissertation Abstract**

Most of what we know and study in astronomy reflects the substantial, luminous objects we can see, but we know many more undersized, dim ones also exist. Our understanding of the Milky Way Galaxy relies on an incomplete survey of our solar neighborhood. Similarly, the cosmic distance scale rests on the measurement of trigonometric parallaxes and absolute magnitudes, but, for many objects within the reach of ground-based astrometry, these measurements have not yet been made. This dissertation contributes to the census of the region within 25 parsecs (pc) of our Sun in several ways.

Our own Solar System contains eight major planets and thousands of minor ones. Although increasing numbers of extrasolar planets are being discovered, we do not know what fraction of stars within our solar neighborhood hosts planetary systems. The residuals remaining after the calculation of stellar parallaxes and proper motions may reveal perturbations due to planets. I performed time-series analyses of such residuals for stars observed by the Southern Parallax Program, which is led by Philip A. Ianna. Analyses of twelve dwarfs revealed no clear indication of unseen companions but one, LHS 288, displays a signal that might indicate the presence of a low mass companion.

As part of the Cerro Tololo Inter-American Observatory Parallax Investigation (CTIOPI), I am obtaining astrometric, photometric, and spectroscopic observations of forty-three M and L dwarfs. Based on less accurate photometric and spectroscopic distance estimates, these stars are candidates for membership in the solar neighborhood. From the preliminary astrometric and photometric data, I can confirm twenty-eight as new members of this fundamental sample, including three that appear to lie within 10 pc and one potential new binary. The spectroscopic observations will lead to either improved, or in many cases initial, spectral types for these stars. This study of nearby stars is part of a larger effort to identify and characterize fully all stars within 10 pc led by Todd J. Henry of Georgia State University in Atlanta.

Because new members of the solar neighborhood are likely to belong to the cool late M, L, and T classes, the ability to measure parallaxes in the infrared band would be helpful. In addition, such a parallax program could support brown dwarf research even if the selected objects do not meet the formal definition of "nearby." Michael Skrutskie's instrumentation group at the University of Virginia developed and mounted a new infrared camera on the 31-inch reflector at Fan Mountain Observatory. My preliminary analysis of the astrometric quality of this instrument indicated that such a program would be feasible.

Through this work, I identified members of the solar neighborhood and characterized them in terms of position, distance (parallax), transverse velocity (proper motion), luminosity, spectral type, and multiplicity (presence of companions).

## **Teaching Interests**

### **Courses of Primary Interest**

Introductory astronomy for non-science majors: solar system, stellar, galactic, and cosmological topics; laboratories to accompany such courses

Advanced astronomical topics for non-science majors: cosmology, archaeoastronomy, astrobiology, and science versus pseudoscience

Introductory astronomy for physics and astronomy majors

Observational techniques, including astrometry and photometry

### **Courses of Secondary Interest**

Stellar astrophysics General physics for non-science majors Mechanics, optics, thermodynamics Electricity and magnetism, quantum mechanics

### **Pedagogical Interests**

Numeracy and scientific literacy Instructional technology Astronomy education research Training of pre-service and in-service teachers Public outreach and K-12 enrichment programs

### **Professional Experience**

### **Research Positions**

*Graduate Research Assistant*, University of Virginia, Astronomy Department, 1998–2007 Dissertation and thesis work under direction of Philip A. Ianna as described above. Reduced astrometric, photometric, and spectroscopic observations of optical and near-infrared sources using IRAF and Figaro. Participated in the 2005 Yale Summer Workshop on Basic Astrometric Methods and the 2005 Michelson Summer Workshop: Discovering New Worlds Through Astrometry. *Observatory Visitor*, Australian National University, Research School of Astronomy & Astrophysics, Canberra, ACT, Summer 2002

Reduced astrometric data from Southern Parallax Program at Mount Stromlo Observatory. Investigated plate-scale variation with temperature of Siding Spring 0.9-meter telescope. Made photometric, astrometric, and asteroid observations at Siding Spring Observatory.

## **Selected Teaching Positions**

Visiting Assistant Professor, Hampden-Sydney College, Physics and Astronomy Department, Hampden-Sydney, VA, 2006–present, 2001–2002

Teaching Introduction to Astronomy, Introductory Astronomy Laboratory, and Fundamentals of Physics II (calculus-based introduction to electricity and magnetism, optics, and modern physics) and assisting with seminar for upper-level physics majors

Previously taught Astronomy of the Solar System; Solar System Astronomy Laboratory; Stellar, Galactic, and Extragalactic Astronomy; and, Stellar Astronomy Laboratory Participated in *Exploring Magnetism in Earth and Space Science Workshop* (Jan. 2007)

*Graduate Instructor*, University of Virginia, Astronomy Department, Summers 2005, 2004, 2003, 2001 Taught Introduction to the Sky and the Solar System (2005, 2004), Introduction to Cosmology (2003, 2001), Introduction to the Stars, Galaxies, and the Universe (2001), and Cosmology Concepts for teachers (2001)

*Teaching* + *Technology Support Partner*, University of Virginia, Astronomy Department, 2002–2005 see http://cti.itc.virginia.edu/~ttspastr/

Facilitated projects to support use and assessment of classroom technology, including creating digital image collections, evaluating web-based testing, leading computing workshops, and providing individual assistance. Participated in *College Astronomy Teaching Excellence Workshop* (Jan. 2004)

*Head Teaching Assistant*, University of Virginia, Astronomy Department, 2003–2004, 2001 Coordinated all TAs supporting astronomy courses. Organized laboratory programs and ensured their smooth operation. Trained and evaluated 17 TAs and 14 telescope operators. Supervised revisions to day laboratory exercises and audio-visual manuals.

*Astronomy Tutor*, University of Virginia, Athletics Department, 2002–2006 Tutored student-athletes taking undergraduate astronomy courses, both introductory and upper-level classes. Led 2 workshops to train math and science tutors in leading problem-solving sessions (2004)

## **Selected Other Professional Positions**

Systems Engineer II, Litton Marine Systems, Charlottesville, VA, 1998–2000 Associate Systems Engineer, Lockheed-Martin Missiles and Space, Newington, VA, 1996–1997 Computer Systems Engineer, Virginia Employment Commission, Richmond, VA, 1995–1996

# **Honors and Awards**

University of Virginia, Governor's Fellowship	2004-2006
F. H. Levinson Fund of the Peninsula Community Foundation, Research support	2005, 2004
Yale University, Astronomy Department, travel grant for "Yale Summer Workshop on Basic Astrometric Methods"	2005
US Naval Observatory, travel grant for "Astrometry in the Age of the Next Generation of Large Telescopes"	2004
University of Virginia, Astronomy Department, Laurence W. Fredrick Teaching Assistant Award, department award for excellence	2001

Litton Marine Systems, Incentive award for organizing program management tasks	1999
Lockheed-Martin Missiles and Space, Team award for successful disaster-recovery test in which I coordinated our participation	1998
Lockheed-Martin Missiles and Space, Incentive award for satellite anomaly response	1996
Rensselaer Polytechnic Institute, Initiated $\Sigma\Pi\Sigma$ (National Physics Honor Society)	1990
Rensselaer Polytechnic Institute, Humanities and Social Sciences Honors Program	1989

# **Professional and Community Service**

*Public Night Program Presenter*, University of Virginia, Astronomy Department, 1998–2007 *Public Night Committee Member*, University of Virginia, Astronomy Department, 2004–2006 Participated in at least 2 programs each year including regular programs for general public and tailored programs for special audiences. Scheduled graduate student presenters (2004-2006). Arranged temporary installation of light pollution exhibit at Leander McCormick Observatory (2004-2005)

Astronomy Question & Answer webpage contributor, University of Virginia, Astronomy Department, 1998–2007

Astronomy Merit Badge Counselor, Boy Scouts of America, Heart of Virginia Counsel, 2003-present

Student Advisory Board Member, University of Virginia, Science and Engineering Libraries, 2000-2001

## **Professional and Community Associations**

American Astronomical Association International Dark-Sky Association Virginia Academy of Science Grace Episcopal Church, Bremo Bluff, VA Grace Episcopal Church Women, Bremo Bluff, VA Canton of Caer Gelynniog and Shire of Isenfir, Society for Creative Anachronism Virginia Masters Swim Team Northern Virginia Marching and Gavel Society

## **Publications**

DORMANN, S. J., Guy, J.G., & Begam, M. C. 2007, "Possible Astrometric Perturbation of LHS 288," *AAS Mtg. 254.16*, see www.astro.virginia.edu/~jlb2j/research

DORMANN, S.J., & Guy, J.G. 2003, "Barnard's Star: Planets or Pretense," VA Journal of Science, 54, 54 (published abstract) see www.astro.virginia.edu/~jlb2j/research

DORMANN, S.J., & Guy, J.G., & Begam, M. C. 2002, "A Search for Astrometric Companions to Southern Nearby Stars," *Bulletin of the American Astronomical Society*, 34, 658 (published abstract) see www.astro.virginia.edu/~jlb2j/research

DORMANN, S.J., & Guy, J.G. 2001, "A Barnard's Star Perturbation Search Using McCormick Observatory Photographic Plate Material," *Bulletin of the American Astronomical Society*, 33, 891 (published abstract)

covered in popular press see www.astro.virginia.edu/~jlb2j/research

Costa, Edgardo, Méndez, René A., Jao, W.-C., Henry, Todd J., Subasavage, John P., Brown, Misty A., Guy, Joe G., & DORMANN, Sarah J. 2005, "The Solar Neighborhood. XIV: Parallaxes from the Cerro Tololo Inter-American Observatory Parallax Program—First Results from the 1.5 m Program," *Astronomical Journal*, 130, 337–349

Jao, W.-C., Henry, Todd J., Subasavage, John P., Brown, Misty A., Guy, Joe G., DORMANN, Sarah J., Costa, Edgardo, & Mendez, René A. 2005, "The Solar Neighborhood. XIII: Parallax Results from the CTIOPI 0.9 Meter Program: Stars with  $\mu \ge 1.0$ " yr<sup>-1</sup> (MOTION Sample)," *Astronomical Journal*, 129, 1954–1967

Joyner, W. T., & DORMANN, S. J. 2003, "Modern Weaponry: Physics 109," course notes, Hampden-Sydney College, Hampden-Sydney, VA

## **Selected Presentations**

DORMANN, S. 2006, "Sunny Days: Telling Time in the Middle Ages," James L. Hamner Public Library, Amelia, VA (invited presenter, summer reading program)

DORMANN, S. 2005, "The Earth Goes Round and Round!" Gordon Avenue Library, Charlottesville, VA (invited presenter, after-school program)

DORMANN, S. 2004, "So High—How High? Measuring Astronomical Distances," Charlottesville Astronomical Society, Charlottesville, VA (invited speaker, amateur astronomers)

DORMANN, S., Gonnella, A., & Howell, J. 2002, "Stars to Steer By," Viking Thyng, College of Yarnvid, Society for Creative Anachronism (invited presenter, medieval re-enactors), similar talks in 2000 & 2001

DORMANN, S. 2002, "Knowing Our Nearby Stars," Charlottesville Astronomical Society, Charlottesville, VA (invited speaker, amateur astronomers)

DORMANN, S. 2001, "Political Outreach," Annual Meeting, International Dark-Sky Association, Tucson, AZ (invited panelist)

## References

Joe Good Guy, Professor Emeritus Department of Astronomy University of Virginia Post Office Box 400325 Charlottesville, Virginia 22904 XXX-XXX-XXXX Office jgg@virginia.edu

Bob Doe, Professor Department of Astronomy University of Virginia Post Office Box 3818 Charlottesville, Virginia 22903 XXX-XXX-XXXX Office bd@virginia.edu

Ted Jones, Assistant Professor Department of Physics and Astronomy Hampden-Sydney College Box 123 Hampden-Sydney, Virginia 23943 XXX-XXX-XXXX Office tj@hsc.edu Associate Department Chairman Department Chair for Summer Session Member, Department Committee on TA's

Member, Department Committee on T Instructor for whom I was a TA

research adviser

Colleague with whom I am currently teaching introductory astronomy lectures and laboratories