

William J. Robbins
Ph.D. Candidate

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Education

2012 (expected)	Ph.D. Candidate, Physics, The University of Sydney
2008	M.S., Physics, The Pennsylvania State University
2006	B.A., Physics, University of California at Berkeley
Cumulative output:	Five peer-reviewed publications, three scientific proposals, two technical memoranda, and six presentations

Skills

Computational	Python, C/C++, Matlab, ROOT data analysis framework, VisIt visualisation suite, Subversion, CVS, Linux, Macintosh OS X, BASH, Portable Batch Systems, PostgreSQL, a variety of astronomical analysis and visualisation tools for images and spectra and simulations using Numerical Electromagnetics Code (v.4)
Hardware	Knowledge of testing and burn-in for electronic circuitry, design of light-tight enclosures, prototyping experience, data capture via Interactive Data Language and Lab-View, digital and analog oscilloscopes, lumen and multimeters, integrating spheres, thermistors and thermocouples, PID controllers, and have had safety instruction for a variety of machine and hand tools
Communication	LaTeX, Inkscape vector graphics software, Libre/Open Office Suite, Scribus desktop publishing software, Apple Keynote and Pages, Microsoft Office Suite, Spanish (read/write/speak), French (read)
Developing skills	ZSH, Objective Caml, Cascading Style Sheets, NGSPICE

Professional Experience

Since Jun 2008	Ph.D. candidate at The University of Sydney. Using radio, infrared, optical, and X-ray images and spectra to model the influences on the shocks formed by the explosions of massive stars. Casual supervisor for first-year physics laboratories.
2006–2008	M.S./Ph.D. student at The Pennsylvania State University. Developed and tested a noise reduction technique for a cosmic ray physics experiment in the Antarctic ice. Established an <i>in situ</i> method for determining the ice properties within the detector volume.
2004–2006	Undergraduate Assistant at Lawrence Berkeley National Laboratory. Conducted quality assurance of circuit boards for use in particle physics experiment. Designed and deployed light-tight enclosure as part of quality assurance set-up.
Summer 2004	National Undergraduate Fellow in Plasma Physics at Los Alamos National Laboratory. Built probe for detection of a particular instability in a charge-neutral ionised gas. Wrote safety documents for experiment during laboratory shut-down.
2002–2004	Research Technician at Lawrence Berkeley National Laboratory. Developed novel heat dissipation technique for electronic ballasts. Assisted in design of energy efficient “Super Fixture” lighting system.

Honours & Awards

2008–2012	International Denison Postgraduate Award, School of Physics, The University of Sydney
2006–2008	Bunton-Waller Graduate Fellowship, The Graduate School, The Pennsylvania State University
2006–2008	David C. Duncan (top-up) Fellowship, Department of Physics, The Pennsylvania State University
2004	Conference Travel Grant, American Physical Society
2005	Greek Leader of the Year, Office of Student Life, University of California at Berkeley
2004	Conference Travel Grant, Princeton Plasma Physics Laboratory
2002	United Food and Commercial Workers' Union Scholarship
2002	Marion P. Alves Award for Academic Excellence

Professional Service and Leadership

2011	Scientific Organising Committee, Harley Wood Winter School of the Astronomical Society of Australia
2008–Present	President, Berkeley (Alumni) Club of Australia
2007–2008	President, Physics Graduate Student Assoc., The Pennsylvania State University
2006–2007	Treasurer, Physics Graduate Student Assoc., The Pennsylvania State University
2006–2007	Student Representative, Computing Infrastructure Committee, Department of Physics, The Pennsylvania State University
2005–2006	President, University of California at Berkeley Chapter of Delta Tau Delta International Fraternity
2005	Outreach Demonstrator, American Physical Society Conference
2004–2005	Vice President, University of California at Berkeley Chapter of Delta Tau Delta International Fraternity

Personal Interests

Reading	Murakami, Dostoevsky, Garcia-Marquez, Irving <i>et cetera</i>
Running	Finishing the Boston Marathon is a life-goal
Coffee	Pour-over enthusiast
Family	Exploring NSW with my lovely partner

References

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Additional references:	available upon request