CURRICULUM VITAE
of
Marshall John Styczinski

PERSONAL

Information: US Citizen, born 1988 in Dublin, California.
Position: Doctoral Candidate at University of Washington.
Interests: Space physics and astrobiology research; science communication and public outreach
Website: http://students.washington.edu/mjstyczi/

EDUCATION

09/2012 – present	University of Washington
In progress:	Doctor of Philosophy, Physics
Complete:	Graduate Certificate, Astrobiology
Degree conferred:	Master of Science, Physics

09/2006 – 06/2010	University of California, Davis
Degree conferred:	Bachelor of Science with Highest Honors, Physics
Significant works:	"On the Return of HP West: The Revival and Restoration of a Hewlett-Packard 5950A Photoelectron Spectrometer" (Undergraduate Honors Thesis, May 2010)

HONORS AND AWARDS

09/2018 – 08/2021	NASA Earth and Space Science Fellowship recipient
05/2020 – 08/2020	JPL Planetary Science Summer School participant
04/2019 – 09/2019	Visiting Scholar, University of Oregon Planetary Science Group
08/2018 – 09/2018	Visiting Scholar, University of Melbourne Astrophysics Group
06/2018 – 08/2018	JPL Space Grant Summer Internship participant
03/2017 – present	Science Communication Fellow, Pacific Science Center
06/2010	Bachelor of Science with Highest Honors from UC Davis

SCIENTIFIC PUBLICATIONS

1. **M. J. Styczinski** and E. M. Harnett. Induced magnetic moments from a nearly spherical ocean. *Icarus*, page 114020, 2021. DOI: 10.1016/j.icarus.2020.114020
2. **M. J. Styczinski** and E. M. Harnett. Magnetic fields induced from stratified, asymmetric oceans. *In prep*, 2021.
3. **M. J. Styczinski** and E. M. Harnett. Constraints on the asymmetric shape of Europa's subsurface ocean. *In prep*, 2021.
4. S. D. Vance, B. G. Bills, C. J. Cochrane, K. M. Soderlund, N. Gómez-Pérez, **M. J. Styczinski**, and C. S. Paty. Magnetic induction in convecting galilean oceans. *Earth and Space Science Open Archive; in revision with Journal of Geophysical Research: Planets*, 2020. DOI: 10.1002/essoar.10502420.1
5. G. T. Seidler, D. R. Mortensen, A. J. Remesnik, J. I. Pacold, N. A. Ball, N. Barry, **M. Styczinski**, and O. R. Hoidn. A laboratory-based hard x-ray monochromator for high-resolution x-ray emission spectroscopy and x-ray absorption near edge structure measurements. *Review of Scientific Instruments*, 85(11):113906, 2014. DOI: 10.1063/1.4901599

PROFESSIONAL AFFILIATIONS

Affiliate, Europa Clipper Science Team
Board of Directors, "Engage" science communication program
University of Washington Astrobiology
American Physical Society
American Geophysical Union

PROFESSIONAL QUALIFICATIONS

Extensive experience with a wide variety of programming languages and systems, especially:
SPICE ephemeris software, NASA PDS, UNIX & bash, Fortran, Python, C++, IDL, Matlab, and LaTeX
6 years formal experience teaching university physics, including TA training and exam writing

SELECTED PRESENTATIONS

08/2018 University of Melbourne Astrophysics Colloquium
12/2017 Pacific Science Center's "Science in the City"
05/2016 Town Hall Theater's "UW Science Now" speaker series

RESEARCH POSITIONS

05/2018 – present *Doctoral Candidate*, University of Washington
Research focus: Magnetic sounding of Jupiter's moon Europa
Magnetospheric plasma modeling
Advisor: Affiliate Professor Erika Harnett

09/2012 – 05/2018 *Graduate Student*, University of Washington
Past research: Improving the efficiency of conceptual instruction in- and out-of-class
Student understanding of Gauss's law
Interdisciplinary learning in science courses
Advisor: Professors Paula R. L. Heron and Peter S. Shaffer

04/2011 – 07/2012 *Junior Specialist*, University of California, Davis
Duties: Design, build, test, and analyze cryogenic bubble detection experiment (Tripathi);
Develop and implement software for analyzing irradiated magnets,
assess radiation damage of magnets used in Linear Collider R&D (Pellett);
Supervisor(s): Professor S. Mani Tripathi, Professor Emeritus David Pellett

07/2010 – 04/2011 *Development Technician*, University of California, Davis
Duties: Restore, repair, and improve indium evaporative deposition system (Tripathi);
Construct sensitive Double Chooz neutrino detector in international team (Svoboda);
Train and mentor undergraduate laboratory assistants
with X-ray photoemission spectrometer (Fadley)
Supervisor(s): Professor S. Mani Tripathi, Professor Robert Svoboda, Distinguished Professor
Charles S. Fadley

05/2008 – 06/2010 *Undergraduate Research Assistant*, University of California, Davis
Duties: Restore and optimize X-ray photoemission spectrometer system, analyze Si/Mo
multilayer crystal native oxide properties
Supervisor(s): Distinguished Professor Charles S. Fadley

TEACHING EXPERIENCE

09/2012 – 06/2018	*Graduate Teaching Assistant*, University of Washington
Courses:	Introductory physics tutorials and laboratories, advanced electromagnetism tutorials, and introductory courses in astrobiology, planetary science, and space science
Structure:	Sole or co-instructor leading discussions in 24−32 student classrooms
Note:	Most terms as head TA, leading training sessions for other TAs, writing exams, and course administration (including curriculum writing and revisions)

09/2012 – 06/2018	*Physics Study Center Staff*, University of Washington
Courses:	Introductory and advanced physics
Structure:	Individual homework and conceptual guidance

10/2007 – 06/2012	*Physics Club Volunteer Tutor*, University of California, Davis
Courses:	Introductory physics and calculus
Structure:	Individual homework and conceptual guidance