

Curriculum Vitae
JAMES F. GUILLOCHON

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Place and Date of Birth: San Diego, CA, USA (December 4, 1983)

Current Field of Research: Hydrodynamics of tidal and collisional astrophysical encounters.

Education:

2007- Astronomy & Astrophysics PhD Student, University of California, Santa Cruz
2001-2005 B.S., Physics, University of California, Irvine. Specialization in astrophysics.
1997-2001 Helix High School, San Diego, CA

Honors and Awards:

2011 Fridley Scholarship
2010- NESSF Planetary Science Graduate Fellow
2009 Whitford Prize, Astronomy & Astrophysics Department, UC Santa Cruz
2008 ICTS Fellow at Jacobs University, Bremen
2007 University of California Regents Fellowship (1 quarter)
2005 UC Irvine Dean's Honor Roll (5 quarters), elected to Sigma Pi Sigma

Professional History:

2008- *Graduate Student Researcher*, UC Santa Cruz, Dept. of Astronomy & Astrophysics
2007 *Teaching Assistant*, UC Santa Cruz, Dept. of Astronomy & Astrophysics
2005-2007 *Software Engineer*, HRL Laboratories, LLC.
2002-2005 *Undergraduate Research Assistant*, UC Irvine
2002 *Software Tester*, Qualsofsoft

Publications:

- M. Dan, S. Rosswog, **J. Guillochon**, E. Ramirez-Ruiz, "How the merger of two white dwarfs depends on their mass ratio: orbital stability and detonations at contact," Accepted to the *Astrophysical Journal*, ArXiv 1201.2406
- J. Bloom and 21 authors including **J. Guillochon**, "A Possible Relativistic Jetted Outburst from a Massive Black Hole Fed by a Tidally Disrupted Star," 2011, *Science*, 333, 6039.
- M. Dan, S. Rosswog, **J. Guillochon**, E. Ramirez-Ruiz, "Prelude to a double degenerate merger: the onset of mass transfer and its impact on gravitational waves and surface detonations," Accepted to *ApJ*, arXiv:1101.5132.
- **J. Guillochon**, E. Ramirez-Ruiz, D. N. C. Lin, "Consequences of the Ejection and Disruption of Giant Planets," 2011, *ApJ*, 732, 74.
- **J. Guillochon**, M. Dan, E. Ramirez-Ruiz, S. Rosswog, "Surface Detonations in Double Degenerate Binary Systems Triggered by Accretion Stream Instabilities," 2010, *ApJL*, 709L, 64.
- S. Rosswog, D. Kasen, **J. Guillochon**, E. Ramirez-Ruiz, "Collisions of White Dwarfs as a New Progenitor Channel for Type Ia Supernovae," 2009, *ApJL*, 705L, 128.
- **J. Guillochon**, E. Ramirez-Ruiz, S. Rosswog, D. Kasen, "Three-dimensional Simulations of Tidally Disrupted Solar-type Stars and the Observational Signatures of Shock Breakout," 2009, *ApJ*, 705, 844.

United States Patents:

- D. Khosla, **J. Guillochon**, "Sparse Sampling Planner for Sensor Resource Management," *United States Patent 7,792,598*.
- D. Khosla, **J. Guillochon**, H. Choe, "Information Processing System for Classifying and/or Tracking an Object," *Patent Application 20080235318, Pending*.

Conference Proceedings:

- D. Khosla, **J. Guillochon**, "Distributed Sensor Resource Management and Planning," *Proc. SPIE Int. Soc. Opt. Eng. 6567:65670B*, 2007.
- M. Rudary, D. Khosla, **J. Guillochon**, P. A. Dow, B. Blyth, "A Sparse Sampling Planner for Sensor Resource Management," *Proc. SPIE Int. Soc. Opt. Eng. 6235:62350A*, 2006.
- **J. Guillochon**, J. Bullock, "Galactic Simulations Using the Barnes-Hut Algorithm," *UCI Undergraduate Research Symposium*, 2005.