# Casey J. Law 267 Campbell Hall Berkeley, CA 94720

#### Education

University of Hawai'i, Physics, B.S. with distinction, 1998 Boston University, Astronomy, M.A., 2000 Northwestern University, Astrophysics, Ph.D., 2007

## **Employment**

2011 - present: Assistant Project Scientist at UC Berkeley.

2009 – 2011: Radio Astronomy Lab Postdoctoral Fellow at UC Berkeley.

2006 - 2008: Postdoctoral Fellow at the University of Amsterdam.

 $2002-2006\colon$  Graduate Research Assistant at Northwestern University.

2000 – 2002: Astrophysicist at Harvard-Smithsonian Center for Astrophysics.

1998 – 2000: Presidential University Graduate Fellow at Boston University.

1997 – 1998: Hawai'i Space Grant Fellow at Institute for Astronomy.

#### **Refereed Journal Publications**

- "ALMA and VLA measurements of frequency-dependent time lags in Sagittarius A\*: evidence for a relativistic outflow" Brinkerink, C. D. et al. 2015, A&A, 576, 41
- "The LOFAR pilot surveys for pulsars and fast radio transients" Coenen, T. et al. 2014, A&A, 570, 60
- "The Intrinsic Two-dimensional Size of Sagittarius A\*", Bower, G. C. et al. 2014, ApJ, 790, 1
- "LOFAR: The LOw-frequency ARray" van Haarlem, M. P., et al, 2013, A&A, 556, 2
- "ASGARD: A Large Survey for Slow Galactic Radio Transients. I. Overview and First Results" Williams, P. K. W. et al. 2013, ApJ, 762, 85
- "The RRAT Trap: Interferometric Localization of Radio Pulses from J0628+0909" Law, C. J., Bower, G. C., Pokorny, M., Rupen, M. P., & Sowinski, K. 2012, ApJ, 760, 124
- "All Transients, All the Time: Real-time Radio Transient Detection with Interferometric Closure Quantities" Law, C. J., Bower, G. C. 2012, ApJ, 749, 143
- "Rapid Development of Interferometric Software Using MIRIAD and Python" Williams, P. K. G., Law, C. J., & Bower, G. C. 2012, PASP, 124, 624
- "Millisecond Imaging of Radio Transients with the Pocket Correlator" Law, C. J., Jones, G., Backer, D. C., Barott, W. C., Bower, G. C., Gutierrez-Kraybill, C., Williams, P. K. G., & Werthimer, D. 2011, ApJ, 742, 12

- "Spectropolarimetry with the Allen Telescope Array: Faraday Rotation toward Bright Polarized Radio Galaxies" Law, C. J., Gaensler, B. M., Bower, G. C., Backer, D. C., Bauermeister, A., Croft, S., Forster, R., Gutierrez-Kraybill, C., Harvey-Smith, L., Heiles, C., Hull, C., Keating, G., MacMahon, D., Whysong, D., Williams, P. K. G., & Wright, M. 2011, ApJ, 728, 57
- "A Multiwavelength View of a Mass Outflow from the Galactic Center" Law, C. J. 2010, ApJ, 708, 474
- "Green Bank Telescope Multiwavelength Survey of the Galactic Center Region" Law, C. J., Yusef-Zadeh, F., Cotton, W. D., & Maddalena, R. J. 2008, ApJS, 177, 255
- "A Neutron Star with a Massive Progenitor in Westerlund 1" Muno, M. P., Clark, J. S., Crowther, P. A., Dougherty, S. M., de Grijs, R., Law, C., McMillan, S. L. W., Morris, M. R., Negueruela, I., Pooley, D., Portegies Zwart, S., & Yusef-Zadeh, F. 2006, ApJ, 636, L41
- "X-Ray Observations of Stellar Clusters Near the Galactic Center" Law, C. J. & Yusef-Zadeh, F. 2004, ApJ, 611, 858

## Synergistic Activities

- Public Software: I have written software to help search radio interferometer data streams for transients ("tpipe") and contributed to general-purpose radio interferometry software ("miriad-python"). These and other packages are public and available at http://www.github.com/caseyjlaw.
- Authored Technical Memos: I led commissioning programs for the study of polarimetry and transients at the Very Large Array, Allen Telescope Array, and the KAT-7 radio interferometers. My commissioning work at the Very Large Array made increased data throughput by a factor of 100 and made new observing modes possible for the first time. These efforts were published as technical memos (ATA memos at http://log.hcro.org/content/ata-memo-series; KAT-7 memos at http://kat.ac.za/pmwiki/KATCommissioning).
- Prison University Project: Since 2010, I have served as a math tutor for the Prison University Project at San Quentin State Prison (http://www.prisonuniversityproject.org). The goal of the project is to provide encarcerated people with access to an accredited college-level curriculum to prepare them for life after prison.
- Science Outreach: At the University of Hawai'i, I helped organize the Hawai'i Physics Olympics and created a volunteer tutoring program for introductory physics classes. At the Univ. of Amsterdam and UC Berkeley, I have participated in special public science outreach days and led publicity for the "Science@Cal" lecture series.