

Biographical Sketch of Michael A. Gully-Santiago

Citizenship: United States Citizen

Professional preparation

Boston University, Astronomy & Physics, BA 2007

University of Texas at Austin, Astronomy, PhD- *anticipated* 2015

Appointments

Researcher, Dept. of Astronomy UT Austin, TX · 2008-2014

GSRP Fellow, NASA JPL Microdevices Lab, Pasadena, CA · 2010-2013

Faculty member, Dexter and Southfield School, Brookline, MA · 2007-2008

Astronomer, Clay Center Observatory, Brookline, MA · 2005-2008

REU student, McDonald Observatory, Fort Davis, TX · 2006

Community Educator, Center for Adult Education, Brookline, MA · 2005-2008

Main Products

- [1] M. Gully-Santiago, W. Wang, C. Deen, and D. Jaffe, "Near-infrared metrology of high-performance silicon immersion gratings," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 8450, Sep. 2012.
- [2] M. A. Gully-Santiago, K. N. Allers, and D. T. Jaffe, "Confirmation and Characterization of Young Disk-Bearing Brown Dwarfs and sub-Brown Dwarfs," in *16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ser. Astronomical Society of the Pacific Conference Series, C. Johns-Krull, M. K. Browning, and A. A. West, Eds., vol. 448, Dec. 2011, p. 633.
- [3] M. Gully-Santiago, W. Wang, C. Deen, D. Kelly, T. P. Greene, J. Bacon, and D. T. Jaffe, "High-performance silicon grisms for 1.2-8.0 μm : detailed results from the JWST-NIRCam devices," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 7739, Jul. 2010.
- [4] S. Kendrew, C. Deen, N. Radziwill, S. Crawford, J. Gilbert, M. Gully-Santiago, and P. Kubanek, "The first SPIE software Hack Day," *ArXiv e-prints*, Aug. 2014.
- [5] V. Joergens, G. Herczeg, Y. Liu, I. Pascucci, E. Whelan, J. Alcalá, K. Biazzo, G. Costigan, M. Gully-Santiago, T. Henning, A. Natta, E. Rigliaco, M. V. Rodríguez-Ledesma, A. Sicilia-Aguilar, J. Tottle, and S. Wolf, "Disks, accretion and outflows of brown dwarfs," *Astronomische Nachrichten*, vol. 334, p. 159, Feb. 2013.

Other Significant Products

- [1] W. Wang, M. Gully-Santiago, C. Deen, D. J. Mar, and D. T. Jaffe, "Manufacturing of silicon immersion gratings for infrared spectrometers," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 7739, Jul. 2010.
- [2] I.-S. Yuk, D. T. Jaffe, S. Barnes, M.-Y. Chun, C. Park, S. Lee, H. Lee, W. Wang, K.-J. Park, S. Pak, J. Strubhar, C. Deen, H. Oh, H. Seo, T.-S. Pyo, W.-K. Park, J. Lacy, J. Goertz, J. Rand, and M. Gully-Santiago, "Preliminary design of IGRINS (Immersion GRating INfrared Spectrograph)," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 7735, Jul. 2010.
- [3] T. Greene, C. Beichman, M. Gully-Santiago, D. Jaffe, D. Kelly, J. Krist, M. Rieke, and E. H. Smith, "NIRCam: development and testing of the JWST near-infrared camera," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 7731, Jul. 2010.

Synergistic Activities

Host, They Blinded Me with Science, a science podcast, KVRX, 91.7FM · Austin, TX · 2013–5/2014 I successfully procured seed funding from College of Natural Sciences to establish a science podcast. I produced 30 original podcasts with ~ 3000 collective online streams plus iTunes downloads. I recruited guests, conducted interviews, edited audio files (with Audacity), managed digital content, authored descriptions, and posted each podcast to the web. I promoted the show with social media.

Interactive museum-style educational installation, Department of Astronomy · Austin, TX · 7/2013–9/2014 I came up with this original outreach idea and sought collaborators. I procured \$4.5k in funding from internally reviewed proposal. I designed, constructed, and completed interactive display cases. I measured over 600 user interactions since its installation.

Mentor for undergraduate student, Amanda T, Astronomy Dept., UT Austin, TX · 2013–2014 Trained Amanda in computer programming, data analysis, optics.

Graduate Student Representative, Astronomy Dept., UT Austin, TX · 2011–2012 Advocate for diversity on graduate admissions committee, liaison to faculty, ombudsman, delegate for University-wide Graduate Student Assembly.

Founder of cofounding member of ATXastroML, AstroData group, and D.A.T.A group I have been promoting interdisciplinary interactions among graduate students in statistics, computer science, biology, etc. All of my research materials are posted to GitHub, a code sharing website.

Collaborators

Allers, Katelyn (Bucknell U.); Deen, Casey (MPIA); Kendrew, Sarah (Oxford U.); Pak, Soojong (Kyung Hee University); Weinberger, Alycia (Carnegie Institute of Washington);

Thesis Advisor: Daniel T. Jaffe

Proposed Postdoctoral Sponsor: Kelle Cruz