

HENRY S. GRASSHORN GEBHARDT

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EDUCATION AND WORK

Jet Propulsion Laboratory – Pasadena, CA	
NPP Fellow	Starting Oct 1, 2019
The Pennsylvania State University – University Park, PA	
Ph.D. in Astronomy and Astrophysics, advisor: Prof. Donghui Jeong	2019
M.S. in Astronomy and Astrophysics	2014
Eberhard-Karls Universität Tübingen – Germany	
Diplom in Physics	2010
University of California – Davis, CA	2002 - 2004

APPOINTMENTS AND AWARDS

Penn State – Graduate Research Assistant	2017 - Present
Penn State – Teaching Assistant & Guest Lecturer, “The Distant Universe” (Astro 292)	2017
Penn State – Teaching Assistant, “Planetary Science and Astronomy” (Astro 401)	2015
Penn State – Zacheus Daniel Travel Fellowship	2015, 2016
Penn State – Stephen B. Brumbach Graduate Fellow	2014 - 2015
Penn State – Teaching Assistant & Guest Lecturer, “High-Energy Astrophysics” (Astro 445)	2013
Penn State – Teaching Assistant, “Introduction to Astronomy” (Astro 5)	2013
Penn State – Teaching Assistant & Guest Lecturer, “Astrophysics” (Astro 440)	2013
Penn State – Teaching Assistant, “Planets and Planetary Systems” (Astro 420)	2012, 2014
Penn State – Instructor, Introductory Astronomy Lab (Astro 11)	2012 - 2016
Tübingen – Research Assistant	2007 - 2010
UC Davis – Scholarship from The Regents of the University of California	2004
UC Davis – Grader, “Introduction to Quantum Mechanics”	2004

PUBLICATIONS

Grasshorn Gebhardt, H. S., Jeong, D., et al., *Unbiased Cosmological Parameter Estimation from Emission Line Surveys with Interlopers*, 2019, ApJ, 876, 32

Shandera, S., Jeong, D., **Grasshorn Gebhardt, H. S.**, *Gravitational Waves from Binary Mergers of Substellar Mass Dark Black Holes*, 2018, PRL, Volume 120, Issue 24, 241102

Grasshorn Gebhardt, H. S., Jeong, D., *Fast and Accurate Computation of Projected Two-point Functions*, 2018, PRD, 97, 023504

Grasshorn Gebhardt, H. S., Zeimann, G. R., Ciardullo, R., et al., *Young, star-forming galaxies and their local counterparts: the evolving relationship of mass–SFR–metallicity since $z \sim 2.1$* , 2016, ApJ, 817, 10

Zeimann, G. R., Ciardullo, R., Gronwall, C., et al. (incl. **Gebhardt, H.**), *The Dust Attenuation Curve versus Stellar Mass for Emission Line Galaxies at $z \sim 2$* , 2015, ApJ, 814, 162

Zeimann, G. R., Ciardullo, R., **Gebhardt, H.**, et al., *Hubble Space Telescope Emission-line Galaxies at $z \sim 2$: The Mystery of Neon*, 2015, ApJ, 798, 29

Ciardullo, R., Zeimann, G. R. Gronwall, C., **Gebhardt, H.**, et al., *Hubble Space Telescope Emission Line Galaxies at $z \sim 2$: The Ly α Escape Fraction*, 2014, ApJ, 796, 64

Zeimann, G. R., Ciardullo, R., **Gebhardt, H.**, et al., *3D-HST Emission Line Galaxies at $z \sim 2$: Discrepancies in the Optical/UV Star Formation Rates*, 2014, ApJ, 790, 113

Hagen, A., Ciardullo, R., Gronwall, C., et al. (incl. **Gebhardt, H.**), *Spectral Energy Distribution Fitting of HETDEX Pilot Survey Ly α Emitters in COSMOS and GOODS-N*, 2014, ApJ, 786, 59

Maier, D., Aschauer, F., Dick, J., et al. (incl. **Gebhardt, H.**), *Development of the Simbol-X science verification model and its contribution for the IXO Mission*, 2010, SPIE, 7742, 77420Z

TALKS, POSTERS, SUMMER SCHOOLS

15th Rencontres du Vietnam , Quy Nhon, Vietnam – <i>Talk</i>	August 2019
AAS 233 , Seattle, WA – <i>Talk Thursday, 10:50-11:10am, LSS session I</i>	January 2019
Summer School on Large-Scale Structure , Berlin, Germany – <i>Poster</i>	July 2018
AAS 231 , Washington, DC – <i>Talk</i>	January 2018
Cosmo-17 , Paris, France – <i>Talk</i>	September 2017
SLAC Summer Institute , Menlo Park, CA – <i>Poster</i>	August 2017
Snowbird Cosmic Lyman-α Workshop , Salt Lake City, UT – <i>Talk</i>	March 2017
ICTP Summer School on Cosmology , Trieste, Italy – <i>Poster</i>	June 2016
Santa Fe Cosmology Workshop 2015 , Santa Fe, NM – <i>Talk</i>	July 2015
AAS 225 , Seattle, WA – <i>Poster</i>	January 2015
SciCoder , New York, NY	June 2014
AAS 223 , Washington, DC – <i>Poster</i>	January 2014

SYNERGISTIC ACTIVITIES

Co-developed a lab experiment for **teaching advanced digital electronics design** for astronomical instrumentation to masters students at the University of Tübingen, Germany.

Developed two computer labs for **teaching special and general relativity concepts** to non-science undergraduate majors. Designed for the Penn State class Astro 11.

Guest lecturer at the Penn State Teacher’s Workshop for the professional development of middle and high school teachers in Pennsylvania.

Participant in Penn State’s annual **AstroFest outreach event** with ~ 2000 attendees every year.

Presenter at the State College **Astronomy on Tap** talks events.

Graduate representative of the graduate students 2016-2017.

COMPUTING SKILLS

<i>Programming languages:</i>	Julia, C, Python, and others
<i>Operating tools:</i>	Linux, git, parallel computing using Unix semaphores, etc.
<i>Algorithms:</i>	https://github.com/hsgg/TwoFAST.jl
<i>Electronics:</i>	FPGA programming with VHDL, SpaceWire