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**EVAN SCHNEIDER**

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Research focus: galaxy formation and evolution with an emphasis on computational techniques

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**EDUCATION**

**University of Arizona**, Tucson, Arizona  
M.S. August 2012 - Astronomy Ph.D. (expected May 2017) - Astronomy & Astrophysics  
Doctoral Thesis Title: *Leveraging advances in supercomputing to explore galaxy evolution*  
Advisor: Dr. Brant Robertson

**Bryn Mawr College**, Bryn Mawr, Pennsylvania 2006-2010  
B.A. - Mathematics, Physics  
*summa cum laude, with Honors in Physics*

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**EMPLOYMENT AND RESEARCH EXPERIENCE**

**Ph.D. Candidate**  
**Steward Observatory, The University of Arizona**, Tucson, AZ 2012 - Present  
Advisor: Dr. Brant Robertson

**Masters Student**  
**Steward Observatory, The University of Arizona**, Tucson, AZ 2010 - 2012  
Advisor: Dr. Chris Impey

**Undergraduate Thesis Student**  
**Bryn Mawr College**, Bryn Mawr, PA 2009-2010  
Advisor: Dr. Peter Beckmann

**Smithsonian Astrophysical Observatory REU**  
**Harvard-Smithsonian Center for Astrophysics**, Cambridge, MA Jun. 2009 - Aug. 2009  
Advisors: Dr. Andrea Dupree, Dr. Nancy Brickhouse

**National Radio Astronomy Observatory REU**  
**National Radio Astronomy Observatory**, Charlottesville, VA Jun. 2008 - Aug. 2008  
Advisor: Dr. Scott Ransom

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**FELLOWSHIPS AND AWARDS**

**University of Arizona College of Science Graduate Student Research Prize, 2015**  
This annual prize is awarded to a single graduate student in the College of Science for excellence in research at the University of Arizona.

**Theoretical Astrophysics Program Graduate Student Research Prize, 2014**  
This biennial prize is awarded for the best recent paper on a theoretical astrophysics topic by a graduate student at the University of Arizona.

**NSF Graduate Research Fellowship, 2011**  
The NSF Graduate Research Fellowship Program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited United States institutions.

**Gertrude Slaughter Fellowship, 2010**  
This college-wide fellowship is awarded to a member of the graduating class for excellence in scholarship. It is one of the top two academic honors bestowed at Bryn Mawr College.

**Elizabeth S. Shippen Scholarship in Science, 2009**  
The Elizabeth S. Shippen Scholarship in Science is awarded to a Bryn Mawr junior each year whose major is in biology, chemistry, geology, or physics, for excellence in the study of sciences.

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## CONFERENCES AND TALKS

- IMPS seminar, University of California Santa Cruz, Oct. 2016
- TAP seminar, University of California Berkeley, *invited talk*, Oct. 2016
- ITC Galaxy and Cosmology seminar, Harvard-Smithsonian CfA, *invited talk*, Sep. 2016
- CITA seminar, University of Toronto, Sep. 2016
- SFIR seminar, Princeton University, Sep. 2016
- CIERA seminar, Northwestern University, *invited talk*, Aug. 2016
- Massive Beasts of the Cosmos Conference, South Africa, contributed talk, Jul. 2016
- What Shapes Galaxies Conference, Space Telescope Institute, contributed poster, Apr. 2016
- Santa Cruz Galaxy Workshop, University of California Santa Cruz, contributed talk, Aug. 2015
- CGM@50 Conference, Italy, contributed poster, Jun. 2015
- NVIDIA seminar, University of Arizona, *invited talk*, May 2015
- CCAPP seminar, The Ohio State University, Apr. 2015
- Naval Research Laboratory lunch talk, Washington DC, *invited talk*, Jan. 2015
- TAP Prize Lecture, University of Arizona, *invited talk*, Dec. 2014
- AAS-Austin, poster presentation, Jan. 2012
- AAS-Washington DC, poster presentation, Jan. 2010
- AAS-Long Beach, poster presentation, Jan. 2009

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## PROFESSIONAL EXPERIENCE

### *Software Development*

**CHOLLA:** Primary code architect and developer, *Cholla* hydrodynamics code  
url: <http://github.com/cholla-hydro/cholla>

### *Computational*

**Stanford – XStream:** 90,000 SUs (XSEDE program Ast 160039, co-PI) est. value \$1,605.

**Oak Ridge National Lab – Titan:** 6 million hours (INCITE DDT programs Ast 107 & 119, co-PI)

**University of Arizona – El Gato:** 128 node GPU cluster, regular access  
Experience with C, C++, CUDA C, IDL, Python

### *Observing*

**MMT – Hectospec:** 1 night

**Magellan – MMIRS:** 2 nights

**Green Bank Telescope:** 1 night

### *Service*

Referee: The Astrophysical Journal, MNRAS

Graduate Admissions Committee Member, University of Arizona Astronomy Department, Jan. 2014

Graduate Council Member, University of Arizona Astronomy Department, 2012 - 2014

Prospective Graduate Student Visit Coordinator, University of Arizona Astronomy Department, Mar. 2013

### *Professional Development*

Argonne Training Program on Extreme Scale Computing, Aug. 2016

Supercomputing 2015 Conference & Tutorials, Nov. 2015

International High Performance Computing Summer School, Jun. 2014

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## COMMUNITY ACTIVITIES AND OUTREACH

- Space Drafts (Astronomy on Tap Tucson) Co-Organizer, Spring 2015 - Present
  - University of Arizona Astronomy Graduate Mentoring Program Coordinator, Fall 2014 - Present
  - University of Arizona Student Fees Committee Member, 2012 - 2014
  - Regular Author and Editorial Board member, Astrobites Blog, 2011 - 2014
  - Expanding Your Horizons Science Workshop, Fall 2011, Spring 2011, Spring 2012, Fall 2013
  - University of Arizona Graduate and Professional Student Council, College of Science Representative, 2011 - 2013
  - University of Arizona Library Advisory Council Member, 2011 - 2013
  - Tucson Women in Astronomy Undergraduate Mentoring Coordinator, 2011 - 2012
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## TEACHING EXPERIENCE

- Teaching Assistant, University of Arizona, Fall 2014  
*Sole teaching assistant for a 150 student section of Astronomy 170B taught by Dr. Don McCarthy. Led study sessions, held office hours, and lectured on occasion.*
- Recitation Leader, Bryn Mawr College, Fall 2008 / Spring 2009  
*Led study sessions for the undergraduate Physics 101/102 course twice a week, creating lesson plans and worksheets, and giving students one-on-one assistance when requested.*
- Physics Lab TA, Bryn Mawr College, Fall 2007, Spring 2008, Fall 2009  
*Monitored introductory physics lab, answering student questions, grading labs.*
- Peer Tutor, Bryn Mawr College, 2007 - 2010  
*Tutored students one-on-one once or twice a week in physics or calculus.*

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## SUBMITTED AND REFEREED PUBLICATIONS

11. *Hydrodynamical Coupling of Mass and Momentum in Multiphase Galactic Winds*  
**Schneider, Evan E.** & Robertson, Brant E. *ApJ in press*, arXiv:1607.01788.
  10. *Cholla: A New Massively-Parallel Hydrodynamics Code For Astrophysical Simulation*  
**Schneider, Evan E.** & Robertson, Brant E. 2015, *ApJS*, Volume 217, Issue 2, 24.
  9. *Steps Toward Unveiling the True Nature of Active Galactic Nuclei: Photometric Characterization of Active Galactic Nuclei in COSMOS*  
**Schneider, Evan E.** Impey, C. D., Trump, J. R., Salvato, M. 2013, *ApJ*, Volume 766, Issue 2, 123.
  8. *The 2012 Hubble Ultra Deep Field (UDF12): Observational Overview*  
Koekemoer, A. M., Ellis, R. S., McLure, R. J., Dunlop, J. S., Robertson, B. E., Ono, Y., Schenker, M. A., Ouchi, M., Bowler, R. A., Rogers, A. B., Curtis-Lake, E., **Schneider, E. E.**, Charlot, S., Stark, D. P., Furlanetto, S. R., Cirasuolo, M., Wild, V., Targett, R. 2013, *ApJS*, Volume 209, Issue 1.
  7. *Evolution of the Sizes of Galaxies over  $7 < z < 12$  Revealed by the 2012 Hubble Ultra Deep Field Campaign*  
Ono, Y., Ouchi, M., Curtis-Lake, E., Schenker, M. A., Ellis, R. S., McLure, R. J., Dunlop, J. S., Robertson, B. E., Koekemoer, A. M., Bowler, R. A., Rogers, A. B., **Schneider, E. E.**, Charlot, S., Stark, D. P., Shimasaku, K., Furlanetto, S. R., Cirasuolo, M. 2013, *ApJ*, Volume 777, Issue 2.
  6. *The UV Continuum and Inferred Stellar Populations of Galaxies at  $z = 7 - 9$  Revealed by the Hubble Ultra-Deep Field 2012 Campaign*  
Dunlop, J. S., Rogers, A. B., McLure, R. J., Ellis, R. S., Robertson, B. E., Koekemoer, A., Dayal, P., Curtis-Lake, E., Wild, V., Charlot, S., Bowler, R. A., Schenker, M. A., Ouchi, M., Ono, Y., Cirasuolo, M., Furlanetto, S. R., Stark, D. P., Targett, T. A., **Schneider, E. E.** 2013, *MNRAS*, Volume 432, Issue 4.
  5. *The UV Luminosity Function of Star-forming Galaxies via Dropout Selection at Redshifts  $z \sim 7$  and 8 from the 2012 Ultra Deep Field Campaign*  
Schenker, M. A., Robertson, B. E., Ellis, R. S., Ono, Y., McLure, R. J., Dunlop, J. S., Koekemoer, A., Bowler, R. A., Ouchi, M., Curtis-Lake, E., Rogers, A. B., **Schneider, E. E.**, Charlot, S., Stark, D. P., Furlanetto, S. R., Cirasuolo, M. 2013, *ApJ*, Volume 768, Issue 2.
  4. *New Constraints on Cosmic Reionization from the 2012 Hubble Ultra Deep Field Campaign*  
Robertson, B. E., Furlanetto, S. R., **Schneider, E. E.**, Charlot, S., Ellis, R. S., Stark, D. P., McLure, R. J., Dunlop, J. S., Koekemoer, A., Schenker, M. A., Ouchi, M., Ono, Y., Curtis-Lake, E., Rogers, A. B., Bowler, R. A., Cirasuolo, M. 2013, *ApJ*, Volume 768, Issue 1.
  3. *The Abundance of Star-forming Galaxies in the Redshift Range 8.5-12: New Results from the 2012 Hubble Ultra Deep Field Campaign*  
Ellis, R. S., McLure, R. J., Dunlop, J. S., Robertson, B. E., Ono, Y., Schenker, M. A., Koekemoer, A., Bowler, R. A., Ouchi, M., Rogers, A. B., Curtis-Lake, E., **Schneider, E. E.**, Charlot, S., Stark, D. P., Furlanetto, S. R., Cirasuolo, M. 2013, *ApJL*, Volume 763, Issue 1.
  2. *TW Hya: Spectral Variability, X-Rays, and Accretion Diagnostics*  
Dupree, A. K., Brickhouse, N. S., Cranmer, S. R., Luna, G. J. M., **Schneider, E. E.**, Bessell, M. S., Bonanos, A., Crause, L. A., Lawson, W. A., Mallik, S. V., Schuler, S. C. 2012, *ApJ*, Volume 760, Issue 1.
  1. *Methyl Group Rotation,  $^1\text{H}$  Spin-lattice Relaxation in an Organic Solid, and the Analysis of Nonexponential Relaxation*  
Beckmann, P. A. & **Schneider, E. E.** 2012, *Journal of Chemical Physics*, Volume 136, Issue 5.
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**REFERENCES**

*Prof. Brant Robertson*

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MS UCO / Lick Observatory  
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