Curriculum Vitae (*2-page limit*)

Evan Schneider
Dept. of Astrophysical Sciences, Princeton University, es26@princeton.edu

Professional Preparation

PhD, Astronomy & Astrophysics, University of Arizona, 2017
MS, Astronomy, University of Arizona, 2012
BA, Physics & Mathematics, Bryn Mawr College, 2010

Appointments

2017–present NASA Hubble Postdoctoral Fellow, Princeton University
2016–2017 Junior Research Specialist, University of California, Santa Cruz
2014–2016 Graduate Research Assistant, University of Arizona
2011–2014 NSF Graduate Research Fellow, University of Arizona
2010–2011 Steward Observatory Graduate Fellow, University of Arizona

Five Publications Most Relevant to This Proposal

1. "Production of Cool Gas in Thermally Driven Outflows", Schneider, E., et al. *The Astrophysical Journal, in press* (2018).
2. "Introducing CGOLS: The Cholla Galactic OutfLow Simulation Suite", Schneider, E. & Robertson, B. *The Astrophysical Journal*, **860**, 135 (2018).
3. "Hydrodynamical Coupling of Mass and Momentum in Multiphase Galactic Winds", Schneider, E. & Robertson, B. *The Astrophysical Journal*, **834**, 144 (2017)
4. "CHOLLA: A New Massively Parallel Hydrodynamics Code for Astrophysical Simulation", Schneider, E. & Robertson, B. *Astrophysical Journal Supplements*, **217**, 24 (2015)

Research Interests and Expertise PI Schneider's research interests center on the ways in which hydrodynamic processes affect galaxy formation and evolution, particularly the effects of stellar feedback. As the primary developer of the GPU-based astrophysics code *Cholla*, Schneider is an expert in hydrodynamical simulation methodology. Given the dynamic range required in cosmological simulations, many baryonic processes remain unresolved. Schneider's Ph.D. thesis and ongoing work consist of using the code *Cholla* to produce petascale astrophysical simulations that reveal previously unknown details of galactic structure, including the turbulent interstellar medium, galactic outflows, and the circumgalactic medium. Schneider served as Co-I of the OLCF DD Project AST107 "Scaling the GPU-enabled Hydrodynamics Code Cholla to the Power of Titan" and DD Project AST119 "Extending the Physics of the GPU-Enabled CHOLLA Code to the Power of Titan", and is Co-PI of the OLCF INCITE Project AST125 "Revealing the Physics of Galactic Winds with Petascale GPU Simulations".

Synergistic Activities

1. Primary developer and maintainer of the astrophysical hydrodynamics code, *Cholla*.
2. Member of the OLCF Users Group Executive Board.
3. Presented at various University of Arizona events emphasizing the utility of HPC systems.
4. Attended and presented at the 2017 & 2018 OLCF User Meetings in Oak Ridge, TN.
5. Advocate for improving the representation of minorities in the HPC community.
6. Referee for ApJ and MNRAS.

Collaborators (*past 5 years including name and current institution*)

Robertson, B. E., University of California, Santa Cruz
Thompson, T. A., The Ohio State University
Koekemoer, A., Space Telescope Science Institute
Ellis, R. S., European Southern Observatory

McLure, R. J., University of Edinburgh
Dunlop, J. S., University of Edinburgh
Ono, Y., University of Tokyo
Schenker, M., PDT Partners
Ouchi, M., University of Tokyo
Bowler, R., University of Edinburgh
Rogers, A., University of Edinburgh
Curtis-Lake, E., University of Edinburgh
Charlot, S., Institut d? Astrophysique de Paris
Stark, D. P., University of Arizona
Furlanetto, S., University of California, Los Angeles
Cirasuolo, M., University of Edinburgh
Wild, V., University of St. Andrews
Targett, T. A., Sonoma State University
Shimasaku, K., University of Tokyo