Curriculum Vitae (*2-page limit*)

Evan Schneider
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Professional Preparation

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

Appointments

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. "Hydrodynamical Coupling of Mass and Momentum in Multiphase Galactic Winds", Schneider, E. & Robertson, B. *The Astrophysical Journal*, **834**, 144 (2017)
2. "CHOLLA: A New Massively Parallel Hydrodynamics Code for Astrophysical Simulation", Schneider, E. & Robertson, B. *Astrophysical Journal Supplements*, **217**, 24 (2015)

Research Interests and Expertise CoI 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 revealed previously unknown details of galactic structure, including the turbulent interstellar medium and galactic outflows. Schneider served as CoI 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".

Synergistic Activities

1. Primary developer and maintainer of the astrophysical hydrodynamics code, *Cholla*.
2. Presented at various University of Arizona events ephasizing the utility of HPC systems.
3. Attended the 2017 OLCF User Meeting in Oak Ridge, TN.
4. Advocate for improving the representation of minorities in the HPC community.

Collaborators (*past 5 years including name and current institution*) Robertson, B. E., University of California, Santa Cruz
Impey, C. D., University of Arizona
Trump, J. R., Pennsylvania State University
Salvato, M., Max Planck Institute for Extraterrestrial Physics
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
Dayal, P., University of Groningen
Dupree, A. K., Harvard-Smithsonian Center for Astrophysics
Brickhouse, N. S., Harvard-Smithsonian Center for Astrophysics
Cranmer, S. R., Harvard-Smithsonian Center for Astrophysics
Luna, G. J., Instituto de Astronomia y Fisica del Espacio
Bessell, M. S., Australian National Observatory, Canberra
Bonanos, A., National Observatory of Athens
Crause, L. A., South African Astronomical Observatory
Lawson, W. A., University of New South Wales
Mallik, S. V., Indian Institute of Astrophysics
Schuler, S. C., National Optical Astronomy Observatory
Ransom, S. M., National Radio Astronomy Observatory
Beckmann, P. A., Bryn Mawr College