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Education

Harvard University	Ph.D.	Astronomy	2001
Thesis: <i>The Impact of Giant Stellar Outflows on Molecular Clouds</i>			
Advisor: Alyssa A. Goodman			
Harvard University	M.S.	Astronomy	1998
Cornell University	B.A.	Physics	1995

Fellowships, Honors and Awards

NSF Faculty Early Career Development (CAREER) Award	2009 – 2014
NSF Astronomy and Astrophysics Postdoctoral Fellowship	2004 – 2007
Harvard University GSAS Merit Fellowship	1998
Harvard University Graduate Prize Fellowship	1995 – 1999
NSF Minority Graduate Fellowship	1995 – 1998
NSF Incentive for Excellence in Scholarship Prize	1994

Academic Experience

Assistant Professor <i>Yale University, Department of Astronomy</i>	2008 –
Assistant Adjunct Professor <i>York College, City University of New York</i>	2006
NSF Astronomy and Astrophysics Postdoctoral Fellow <i>American Museum of Natural History, Department of Astrophysics</i>	2004 – 2007
Postdoctoral Researcher <i>California Institute of Technology, Astronomy Department (OVRO group)</i>	2001 – 2004
Graduate Research Fellow <i>Harvard University, Astronomy Department</i>	1996 – 2001
Undergraduate Research Assistant <i>Cornell University, Astronomy Department</i>	1992 – 1995

Professional Service

NRC Astronomy and Astrophysics Decadal Survey, Member of Science Frontier Panel on Planetary Systems and Star Formation	2009
James Clerk Maxwell Telescope (JCMT) Proposal Review	2009
NASA Connecticut Space Grant Consortium, Yale Campus Director	2008 –
NSF Panel to review the National Astronomy and Ionosphere Center	2008
NSF AAG Galactic Astronomy Review Panel	2005, 2008
Journal Referee (ApJ, AJ, and ApJLett)	2001 –
Time Allocation and Proposal Review Committee for OVRO	2001 – 2004

Research Grants

Star Formation and Dense Gas Dynamics in Molecular Clouds <i>NSF Faculty Early Career Development (CAREER) Award (\$750,402)</i>	2009 – 2014
Gas Entrainment and Shock Physics in Giant Protostellar Outflows <i>Spitzer Space Telescope Guest Observer Grant (\$32,000)</i>	2006 – 2009
The Impact of Young Stellar Outflows on their Surroundings <i>NSF Astronomy and Astrophysics Postdoctoral Fellowship (\$201,000)</i>	2004 – 2007
The Impact of Infall and Outflow Motions on the Circumstellar Envelope of Young Stars <i>Hubble Space Telescope Archival Research Grant (\$83,580)</i>	2003 – 2006

Publications

- Arce, H. G.**, Borkin, M., Goodman, A., Pineda, J., & Halle, M. 2009, *The COMPLETE Survey of Molecular Outflows in Perseus*, submitted to ApJ
- Arce, H. G.**, Santiago-García, J., Jørgensen, J. K., Tafalla, M., & Bachiller, M. 2008, *Complex Molecules in the L1157 Molecular Outflow*, ApJ, 681, L21
- Borkin, M., **Arce, H.**, Goodman, A., & Halle, M. 2008, *3D Visualization and Detection of Outflows From Young Stars* in *Astronomical Data Analysis Software and Systems XVII*, 145
- Schnee, S., Caselli, P., Goodman, A., **Arce, H. G.**, Ballesteros-Paredes, J., & Kuchibhotla, K. 2007, *TMC-1C: An Accreting Starless Core*, ApJ, 671, 1839
- Arce, H. G.**, Shepherd, D., Gueth, F., Lee, C.-F., Bachiller, R., Rosen, A., & Beuther, H., 2007, *Molecular Outflows in Low- and High-Mass Star Forming Regions*, *Protostars and Planets V*, eds. B. Reipurth, D. Jewitt and K. Keil, University of Arizona Press, Tucson, p. 245
- Arce, H. G.**, & Sargent, A. I., 2006, *The Evolution of Outflow-Envelope Interactions in Low-Mass Protostars*, ApJ, 646, 1070
- Ridge, N. A., Di Francesco, J., Kirk, H., Li, D., Goodman, A. A., Alves, J., **Arce, H. G.**, et al. 2006, *The COMPLETE Survey of Star Forming Regions: Phase I Data*, AJ, 131, 2921

- Jha, S., Kirshner, R. P., Challis, P., Garnavich, P. M., Matheson, T., Soderberg, A. M., Graves, G. J. M., Hicken, M., Alves, J. F., **Arce, H. G.**, et al. 2006, *UBVRI Light Curves of 44 Type Ia Supernovae*, AJ, 131, 527
- Arce, H. G.**, & Sargent, A. I. 2005, *Pushing the Envelope: The Impact of an Outflow at the Earliest Stages of Star Formation*, ApJ, 624, 232
- Arce, H. G.**, & Sargent, A. I. 2004, *Outflow-Infall Interactions in Early Star Formation and their Impact on the Mass-Assembling Process in L1228*, ApJ, 612, 342
- Goodman, A. A., & **Arce, H. G.** 2004, *PV Cephei: Young Star Caught Speeding?*, ApJ, 608, 831
- Arce, H. G.**, & Goodman A. A. 2002, *Bow Shocks, Wiggling Jets, and Wide-Angle Winds: A High-Resolution Study of the Entrainment Mechanism of the PV Cephei Molecular (CO) Outflow*, ApJ, 575, 928
- Arce, H. G.**, & Goodman A. A. 2002, *The Great PV Cephei Outflow: A Case Study in Outflow-Cloud Interaction*, ApJ, 575, 911
- Arce, H. G.**, & Goodman A. A. 2001, *The Mass-Velocity and Position-Velocity Relations in Episodic Outflows*, ApJ, 551, L171
- Arce, H. G.**, & Goodman A. A. 2001, *The Episodic, Precessing Giant Molecular Outflow from IRAS 04239+2436 (HH 300)*, ApJ, 554, 132
- Arce, H. G.**, & Goodman A. A. 1999, *An Extinction Study of the Taurus Dark Cloud Complex*, ApJ, 517, 264
- Arce, H. G.**, & Goodman A. A. 1999, *Measuring Galactic Extinction: A Test*, ApJ, 512, L135
- Arce, H. G.**, Goodman, A. A., Bastien, P., Manset, N., & Sumner M. 1998, *The Polarization Power of the Interstellar Medium in Taurus*, ApJ, 499, L93
- Giovanelli, R., Scodreggio, M., Solanes, J. M., Haynes, M. P., **Arce, H.**, & Sakai, S. 1995, *HI 2334+26: an extended HI cloud near Abell 2634*, AJ, 109, 1451