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Citizenship

United States of America

Education

- Ph.D., Astronomy, Ohio State University, expected 2010 (thesis advisor: David Weinberg)
- M.S., Astronomy, Ohio State University, 2007
- S.B., Physics, Massachusetts Institute of Technology, 2005 (thesis advisor: Paul Schechter)

Research Interests

- Galaxies: evolution, winds and feedback, the mass-metallicity relation, star formation efficiency, phenomenology, scaling relations
- The intergalactic medium: the 1-D, 2-D, and 3-D Lyman- α forest, the metal content of the IGM, hydrogen and helium reionization
- Hydrodynamic simulations: smoothed particle hydrodynamics, numerical effects, star formation feedback recipes, accurately connecting small- and large-scale structure
- Weak lensing: galaxy clusters, cosmic shear, systematics related to measurement methods, constraining cosmological parameters and the growth of structure

Publications

1. *Pressure Support vs. Thermal Broadening in the Lyman- α Forest I: Effects of the Equation of State on Longitudinal Structure*
Peeples, M. S.; Weinberg, D. H.; Davé, R.; Fardal, M. A.; Katz, N. (2009); arXiv:0910.0256; submitted to the Monthly Notices of the Royal Astronomical Society
2. *Pressure Support vs. Thermal Broadening in the Lyman- α Forest II: Effects of the Equation of State on Transverse Structure*
Peeples, M. S.; Weinberg, D. H.; Davé, R.; Fardal, M. A.; Katz, N. (2009); arXiv:0910.0250; submitted to the Monthly Notices of the Royal Astronomical Society
3. *An Analysis of DES Cluster Simulations through the IMCAT and Shapelets Weak Lensing Pipelines*
Gill, M.; Young, J.; Draskovic., J.; Honscheid, K.; Lin, H.; Kuropatkin, N.; Martini, P.; **Peeples, M. S.**; Smith, G. N.; Weinberg, D. H. (2009); arXiv:0909.3856; submitted to the Monthly Notices of the Royal Astronomical Society
4. *Tidally Induced Outbursts in OJ 287 during 2005–2008*
Valtonen, M.; Nilsson, K.; Villforth, C.; Lehto, H. J.; Takalo, L. O., Lindfors, E.; Sillanpää, A.; Hentunen, V.-P.; Mikkola, S.; Zola, S., Drozd, M.; Koziel, D.; Ogloza, W.; Kurpinkska-Winiarska, M.; Siwak, M.; Winiarski, M.; Heidt, J.; Kidger, M.; Pursimo, T.; Wu, J.-H., Zhou, X.; Sadakane, K.; Marchev, D.; Nissinen, M.; Niarchos, P., Liakos, A.; Gazeas, K.; Dogru, S.; Poyner, G.; Dietrich, M.; Assef, R.; Atlee, D.; Bird, J.; DePoy, D.; Eastman, J.; **Peeples, M. S.**, Prieto, J.; Watson, L.; Yee, J.; Mattingly, & Ohlert (2009); *The Astrophysical Journal*, 698, 781

5. *Outliers from the Mass-Metallicity Relation II: A Sample of Massive Metal-Poor Galaxies from SDSS*
Peeples, M. S.; Pogge, R. W.; Stanek, K. Z. (2009); *The Astrophysical Journal*, 695, 259
6. *The Mass of the Black Hole in the Quasar PG 2130+099*
Grier, C. J.; Peterson, B. M.; Bentz, M. C.; Denney, K. D.; Eastman, J. D.; Dietrich, M.; Pogge, R. W.; Prieto, J. L.; DePoy, D. L.; Assef, R. J.; Atlee, D. W.; Bird, J.; Eyler, M. E.; Peeples, M. S.; Siverd, R.; Watson, L. C.; Yee, J. C. (2008); *The Astrophysical Journal*, 688, 837
7. *Outliers from the Mass-Metallicity Relation I: A Sample of Metal-Rich Dwarf Galaxies from SDSS*
Peeples, M. S.; Pogge, R. W.; Stanek, K. Z. (2008); *The Astrophysical Journal*, 685, 904
8. *A Study of Stellar Photometric Variability Within the Central 4 pc of the Galactic Center with Infrared Image Subtraction*
Peeples, M. S.; Stanek, K. Z.; DePoy, D. (2007); *Acta Astronomica*, 57, 173
9. *The Shear TEsting Programme 2: Factors affecting high precision weak lensing analyses*
Massey, R.; Heymans, C.; Bergé, J.; Bernstein, G.; Bridle, S.; Clowe, D.; Dahle, H.; Ellis, R.; Erben, T.; Hettterscheidt, M.; High, F. W.; Hirata, C.; Hoekstra, H.; Hudelot, P.; Jarvis, M.; Johnston, D.; Kuijken, K.; Margoniner, V.; Mandelbaum, R.; Mellier, Y.; Nakajima, R.; Paulin-Henriksson, S.; Peeples, M. S.; Roat, C.; Refregier, A.; Rhodes, J.; Schrabback, T.; Schirmer, M.; Seljak, U.; Semboloni, E.; van Waerbeke L. (2007); *Monthly Notices of the Royal Astronomical Society*, 376, 13
10. *The Nature of the Variable Galactic Center Source GCIRS 16SW Revisited: A Massive Eclipsing Binary*
Peeples, M. S.; Bonanos, A.; DePoy, D. L.; Stanek, K. Z.; Pepper, J.; Pogge, R. W.; Pinsonneault, M.; Sellgren, K. (2007); *The Astrophysical Journal Letters*, 654, 61L
11. *The Connection Between Barstrength and Circumnuclear Dust Structure*
Peeples, M. S. and Martini, P. (2006); *The Astrophysical Journal*, 652, 1097

Conferences Attended

- Baryon Oscillation Spectroscopic Survey, Lyman- α Forest Collaboration Meeting; Columbus, OH; March 2009
- Dark Energy Survey Collaboration Meeting; Columbus, OH; November 2008
- Sloan Digital Sky Survey II Symposium; Chicago, IL; August 2008; Poster: *Outliers from the Mass-Metallicity Relation*
- Galaxy and Black Hole Evolution; Tucson, AZ; November 2007
- 210th American Astronomical Society Meeting; Honolulu, HI; May 2007; Poster: *Studying Variable Stars within the Central 4 Pc of the Galactic Center with Near-infrared Image Subtraction*
- Mapping the Galaxy and Nearby Galaxies; Ishigaki, Japan; June 2006; Poster: *The Connection Between Barstrength and Circumnuclear Dust Structure*
- 205th American Astronomical Society Meeting; San Diego, CA; January 2005; Poster: *Possible Futures for Quadruply-Imaged Quasar Systems due to Micro-lensing by Stars*