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Education

The Ohio State University, Columbus, Ohio — Advisor: David H. Weinberg
Ph.D. in Astrophysics — *2008 – 2013*

The Ohio State University, Columbus, Ohio
M.Sc. in Astrophysics

Nanjing University, China
B.S. in Astronomy

Research Interests

Theoretical Astrophysics and Cosmology with close tie to observations:

- Cluster cosmology, Dark Enery, modified gravity, weak lensing, galaxy infall kinematics
- Quasar variability, supermassive blackholes, reverberation mapping

Awards and Honors

Distinguished University Fellowship (OSU)	*2008/2009, 2012/2013*
National Science Fellowship of China (Ministry of Education, China)	*2003, 2004, 2005*
Scholarship for Excellence in Undergraduate Study (NJU)	*2004, 2005*

Positions

Postdoctoral Fellow (Carnegie Mellon Univ.)	*Oct, 2013 –*

Invited Talks

McWilliams Center for Cosmology, Carnegie Mellon University	*Dec. 10 2012*
Berkeley Cosmology Group Seminar, UC Berkeley	*Oct. 19 2012*
Chinese Academy of Sciences Colloquium, Shanghai Observatory	*Aug. 30 2010*

References

Prof. David H. Weinberg

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Publications (16 publications, 8 first-author, YouTube coffee brief available)

16. **Zu, Y.**, Weinberg, D. H., Jennings, E., Li, B., and Wyman, M. (2013c). Galaxy infall kinematics as a test of modified gravity. arXiv e-print 1310.6768.

15. **Zu, Y.**, Kochanek, C. S., Kozłowski, S., and Peterson, B. M. (2013a). Reverberation mapping with photometry. arXiv e-print 1310.6774.

14. **Zu, Y.** and Weinberg, D. H. (2013). The redshift-space cluster-galaxy cross-correlation function - i. modelling galaxy infall on to millennium simulation clusters and SDSS groups. *Monthly Notices of the Royal Astronomical Society*, 431:3319–3337.

13. **Zu, Y.**, Kochanek, C. S., Kozłowski, S., and Udalski, A. (2013b). Is quasar optical variability a damped random walk? *The Astrophysical Journal*, 765:106.

12. **Zu, Y.**, Weinberg, D. H., Rozo, E., Sheldon, E. S., Tinker, J. L., and Becker, M. R. (2012). Cosmological constraints from the large scale weak lensing of SDSS MaxBCG clusters. arXiv e-print 1207.3794.

11. **Zu, Y.**, Kochanek, C. S., and Peterson, B. M. (2011a). An alternative approach to measuring reverberation lags in active galactic nuclei. *The Astrophysical Journal*, 735:80.

10. **Zu, Y.**, Weinberg, D. H., Davé, R., Fardal, M., Katz, N., Kereš, D., and Oppenheimer, B. D. (2011b). Intergalactic dust extinction in hydrodynamic cosmological simulations. *Monthly Notices of the Royal Astronomical Society*, 412:1059–1069.

9. **Zu, Y.**, Zheng, Z., Zhu, G., and Jing, Y. P. (2008). Environmental effects on real-space and redshift-space galaxy clustering. *The Astrophysical Journal*, 686:41–52.

8. Spergel, D., Gehrels, N., Breckinridge, J., Donahue, M., Dressler, A., Gaudi, B. S., Greene, T., Guyon, O., Hirata, C., Kalirai, J., Kasdin, N. J., Moos, W., Perlmutter, S., Postman, M., Rauscher, B., Rhodes, J., Wang, Y., Weinberg, D., Centrella, J., Traub, W., Baltay, C., Colbert, J., Bennett, D., Kiessling, A., Macintosh, B., Merten, J., Mortonson, M., Penny, M., Rozo, E., Savransky, D., Stapelfeldt, K., **Zu, Y.**, Baker, C., Cheng, E., Content, D., Dooley, J., Foote, M., Goullioud, R., Grady, K., Jackson, C., Kruk, J., Levine, M., Melton, M., Peddie, C., Ruffa, J., and Shaklan, S. (2013a). Wide-field InfraRed survey telescope-astrophysics focused telescope assets WFIRST-AFTA final report. arXiv e-print 1305.5422.

7. Tinker, J. L., Sheldon, E. S., Wechsler, R. H., Becker, M. R., Rozo, E., **Zu, Y.**, Weinberg, D. H., Zehavi, I., Blanton, M. R., Busha, M. T., and Koester, B. P. (2012). Cosmological constraints from galaxy clustering and the mass-to-number ratio of galaxy clusters. *The Astrophysical Journal*, 745:16.

6. Spergel, D., Gehrels, N., Breckinridge, J., Donahue, M., Dressler, A., Gaudi, B. S., Greene, T., Guyon, O., Hirata, C., Kalirai, J., Kasdin, N. J., Moos, W., Perlmutter, S., Postman, M., Rauscher, B., Rhodes, J., Wang, Y., Weinberg, D., Centrella, J., Traub, W., Baltay, C., Colbert, J., Bennett, D., Kiessling, A., Macintosh, B., Merten, J., Mortonson, M., Penny, M., Rozo, E., Savransky, D., Stapelfeldt, K., **Zu, Y.**, Baker, C., Cheng, E., Content, D., Dooley, J., Foote, M., Goullioud, R., Grady, K., Jackson, C., Kruk, J., Levine, M., Melton, M., Peddie, C., Ruffa, J., and Shaklan, S. (2013b). WFIRST-2.4: what every astronomer should know. arXiv e-print 1305.5425.

5. Shappee, B. J., Prieto, J. L., Grupe, D., Kochanek, C. S., Stanek, K. Z., De Rosa, G., Mathur, S., **Zu, Y.**, Peterson, B. M., Pogge, R. W., Komossa, S., Im, M., Jencson, J., Holoien, T. W.-S., Basu, U., Beacom, J. F., Szczygiel, D. M., Brimacombe, J., Adams, S., Campillay, A.,

Choi, C., Contreras, C., Dietrich, M., Dubberley, M., Elphick, M., Foale, S., Giustini, M., Gonzalez, C., Hawkins, E., Howell, D. A., Hsiao, E. Y., Koss, M., Leighly, K. M., Morrell, N., Mudd, D., Mullins, D., Nugent, J. M., Parrent, J., Phillips, M. M., Pojmanski, G., Rosing, W., Ross, R., Sand, D., Terndrup, D. M., Valenti, S., Walker, Z., and Yoon, Y. (2013). The man behind the curtain: X-rays drive the UV through NIR variability in the 2013 AGN outburst in NGC 2617. arXiv e-print 1310.2241.

4. Grier, C. J., Martini, P., Watson, L. C., Peterson, B. M., Bentz, M. C., Dasyra, K. M., Dietrich, M., Ferrarese, L., Pogge, R. W., and **Zu, Y.** (2013a). Stellar velocity dispersion measurements in high-luminosity quasar hosts and implications for the AGN black hole mass scale. *The Astrophysical Journal*, 773:90.

3. Grier, C. J., Peterson, B. M., Horne, K., Bentz, M. C., Pogge, R. W., Denney, K. D., De Rosa, G., Martini, P., Kochanek, C. S., **Zu, Y.**, Shappee, B., Siverd, R., Beatty, T. G., Sergeev, S. G., Kaspi, S., Araya Salvo, C., Bird, J. C., Bord, D. J., Borman, G. A., Che, X., Chen, C., Cohen, S. A., Dietrich, M., Doroshenko, V. T., Efimov, Y. S., Free, N., Ginsburg, I., Henderson, C. B., King, A. L., Mogren, K., Molina, M., Mosquera, A. M., Nazarov, S. V., Okhmat, D. N., Pejcha, O., Rafter, S., Shields, J. C., Skowron, J., Szczygiel, D. M., Valluri, M., and van Saders, J. L. (2013b). The structure of the broad-line region in active galactic nuclei. i. reconstructed velocity-delay maps. *The Astrophysical Journal*, 764:47.

2. Grier, C. J., Peterson, B. M., Pogge, R. W., Denney, K. D., Bentz, M. C., Martini, P., Sergeev, S. G., Kaspi, S., Minezaki, T., **Zu, Y.**, Kochanek, C. S., Siverd, R., Shappee, B., Stanek, K. Z., Araya Salvo, C., Beatty, T. G., Bird, J. C., Bord, D. J., Borman, G. A., Che, X., Chen, C., Cohen, S. A., Dietrich, M., Doroshenko, V. T., Drake, T., Efimov, Y. S., Free, N., Ginsburg, I., Henderson, C. B., King, A. L., Koshida, S., Mogren, K., Molina, M., Mosquera, A. M., Nazarov, S. V., Okhmat, D. N., Pejcha, O., Rafter, S., Shields, J. C., Skowron, J., Szczygiel, D. M., Valluri, M., and van Saders, J. L. (2012a). Reverberation mapping results for five seyfert 1 galaxies. *The Astrophysical Journal*, 755:60.

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