Andrew Connolly

Professional Preparation

Imperial College, University of London, Ph.D. (Physics and Astronomy), 1993
Imperial College, University of London; Physics; B.Sc. (First Class Honors) 1988

Appointments

2007 – Present, Associate Professor, University of Washington, Seattle, WA
2006 – 2007, Visiting Faculty, Google, Pittsburgh, PA
2004 – 2006, Associate Professor, University of Pittsburgh, Pittsburgh, PA
1999 – 2004, Assistant Professor, University of Pittsburgh, Pittsburgh, PA
1995 – 1999, Associate Research Scientist, Johns Hopkins University, Baltimore, MD
1992 – 1994, Postdoctoral Fellow, Johns Hopkins University, Baltimore, MD

Selected Relevant Publications

[1] Connolly, A.J., Peterson, J., Jernigan, J.G., Abel, R., Bankert, J., and 18 colleagues, "Simulating the LSST System", Proceedings of SPIE Vol. 7737 (2010)
[2] Stabenau, H. F., Connolly, A., and Jain, B., "Photometric redshifts with surface brightness priors", MNRAS, 387, 1215 (2009)
[3] Welikala, N., Connolly, A. J., Hopkins, A. M., Scranton, R., and Conti, A., "Spatially Resolved Galaxy Star Formation and Its Environmental Dependence. I.", ApJ, 677, 970 (2008)
[4] Kubica, J., Moore, A. & Connolly, A.J., "Efficient Trajectory Based Spatial Queries", The Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (2005)
[5] Hopkins, A. M., Miller, C. J., Connolly, A. J., Genovese, C., Nichol, R. C., Wasserman, L. "A New Source Detection Algorithm Using the False-Discovery Rate", AJ, 123, 1086 (2002)

Other Publications

[1] Yip, C. W., Connolly, A. J., Vanden Berk, D. E., Ma, Z., Frieman, J. A., SubbaRao, M., Szalay, A. S., Richards, G. T., Hall, P. B., Schneider, D. P., and 12 colleagues, "Spectral Classification of Quasars in the Sloan Digital Sky Survey: Eigenspectra, Redshift, and Luminosity Effects", AJ, 128, 2603 (2004)
[2] Budavari, T., Connolly, A.J., Szalay, A.S., Szapudi, I., Csabai, I., Scranton, R., Bahcall, N.A., Brinkmann, J., Eisenstein, D.J., Frieman, J.A., Fukugita, A., Gunn, J.E., Johnston, D., Kent, S., Loveday, J., Lupton, R.H., Tegmark, M., Thakar, A.R., Yanny, B., York, D.G., Zehavi, I., "Angular Clustering with Photometric Redshifts in the Sloan Digital Sky Survey: Bimodality in the Clustering Properties of Galaxies", ApJ, 595, 59 (2003)
[3] Connolly, A. J., Scranton, R., Johnston, D., Dodelson, S., Eisenstein, D. J., Frieman, J. A., Gunn, J. E., Hui, L., Jain, B., Kent, S., and 48 colleagues, "The Angular Correlation Function of Galaxies from Early Sloan Digital Sky Survey Data", ApJ, 579, 42 (2002)
[4] Connolly, A.J. & Szalay, A.S., "A Robust Classification of Galaxy Spectra: Dealing with Noisy and Incomplete Data", AJ, 117,2052 (1999)
[5] Szalay, A.S., Connolly, A.J. & Szokoly, G.P., "Simultaneous Multicolor Detection of Faint Galaxies in the Hubble Deep Field", AJ, 117, 68 (1999)

Synergistic Activities

[1] Committees and Panels: Member of NSF and NASA review panels; member of Physics advisory panel for arXiv; science organizing committee for Astroinformatics 2010, organizer for SDSS and LSST workshops.

[2] Outreach Led the development of Sky in Google Earth (aka "Google Sky") while on sabbatical at Google; a framework for exploring the sky. Google Sky was one of the most successful releases of software in the history of Google. Developed an affordable planetarium system with Microsoft and World Wide Telescope.

[3] Community Support Developer of fast algorithms for data mining of large astronomical data sets. Software for the implementation of these algorithms are made available through the INCA collaboration.

[4] Teaching PhD advisor for seven graduate students, research adviser for 14 undergraduate students including students supported under an NSF funded REU program for under-represented groups in astrophysics. Co-creator and co-lecturer for a joint Pitt/CMU Ph.D. course for students from Computer Science, Statistics, Physics and Biology: "Computational Statistics of Multidimensional Scientific Databases".

Collaborators & Co-Editors

Tim Axelrod (U of Arizona), Jeremy Brewer (U Pittsburgh), Tamas Budavari (Johns Hopkins), Barbara Catinella (NAIC-Arecibo Obs), Carol Christian (STScI), Alberto Conti (STScI), Josh Frieman (U of Chicago), Jeff Gardner (U Washington), Chris Genovese (Carnegie Mellon), Lloyd Knox (UC Davis), Hans F. Stabenau (U Pennsylvania), Andrew Hopkins (U of Sydney), Bhuvnesh Jain (U Pennsylvania), Robert Jedicke (University of Hawaii), Simon Krughoff (U Washington), Jeremy Kubica (Google), Robert Lupton (Princeton University), Andrew Moore (Google), Bob Nichol (U Portsmouth), Andrew Ptak (Johns Hopkins), Gordon Richards (Drexel University), Ryan Scranton (Google), Sam Schmidt (UC Davis), Jeff Schneider (Carnegie Mellon), Ravi Sheth (U Pennsylvania), Ramin Skibba (Max Planck Institute for Astronomy), Michael Schneider (UC Davis), Mark Subbarao (U of Chicago), Alex Szalay (Johns Hopkins), Istvan Szapudi (University of Hawaii), Masahiro Takada (Tohoku University), Tony Tyson (UC Davis), Larry Wasserman (Carnegie Mellon), Niraj Welikala (U of Pittsburgh), Ching-Wa Yip (Johns Hopkins), Hu Zhan (UC Davis).

Graduate and Postdoctoral Advisors and Advisees&

[1] Graduate and Postdoctoral Advisors Alex Szalay (Johns Hopkins), Bob Joseph (U. of Hawaii)

[2] Postdoctoral Advisees Joerg Colberg (Carnegie Mellon), Alberto Conti (STScI), Scott Daniel (UW), Jeff Gardner (UW), Rob Gibson (UW), Andrew Hopkins (U of Sydney), Diego Marcos (UW), Simon Krughoff (UW), James Pizagno (UW), Ryan Scranton (Davis), Nicole Silvestre (UW), Dan vanden Berk (Penn State), Keith Wiley (UW)

[3] Graduate Student Advisees Yusra AlSayyad (UW), Robert Brunner (U Illinois), Jeremy Brewer (U of Pittsburgh), Tamas Budavari (Johns Hopkins), Cameron McBribe (U of Pittsburgh), Sam Schmidt (UC Davis), Gyula Szokoly (Max-Planck fur Extraterrestrische Physik), Jake VanderPlas (UW), Niraj Welikala (U of Pittsburgh), Ching-Wa Yip (Johns Hopkins).