David W. Hogg

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Education

PhD 1998, Physics, California Institute of Technology.
SB 1992 (Physics), Massachusetts Institute of Technology.

Positions

current: Professor of Physics and Data Science, New York University, 2014–present.
Associate Professor of Physics with tenure, New York University, 2007–2014.
Assistant Professor of Physics, New York University, 2001–2007.
Long-term member, Institute for Advanced Study, 1997–2001.

Short-term and part-time positions

current: Group Leader, Astronomical Data Group, Center for Computational Astrophysics, Flatiron Institute, New York, 2017–present.
current: Adjunct Senior Staff Scientist, Max-Planck-Institut für Astronomie, Heidelberg, Germany, 2012–present.
Consultant, Flatiron Institute, New York, 2016–2017.
Consultant, Simons Center for Data Analysis, Simons Foundation, New York, 2015–2016.
Visiting Scientist, Max-Planck-Institut für Astronomie, Heidelberg, Germany, 2006–2011.
Visiting Professor, Department of Astronomy and Astrophysics, Columbia University, 2008
Consultant, Google Inc., 2008.
Scholar in Residence, *Spitzer* Science Center, California Institute of Technology, 2006
Visiting Professor, Department of Physics, Massachusetts Institute of Technology, 2005
Lecturer (part-time), Department of Physics, Princeton University, 1998–2001.

Administrative roles

Executive Director, *Moore–Sloan Data Science Environment at NYU*, 2013–2015.
Deputy Director, New York University Center for Data Science, 2014–2015.
Director of Undergraduate Studies, Department of Physics, New York University, 2008–2015.

Service

Sloan Digital Sky Survey V Technical Advisory Group, 2017–present.
Sloan Digital Sky Survey IV Collaboration Council, 2013–present.
Spitzer Science Center Oversight Committee (to advise the *Spitzer Space Telescope* project), 2008–2019.
Panel reviewer for the National Science Foundation (2019).
Founder and co-organizer of hands-on research and education workshops, including *AAS Hack Together Day* (annually in January, 2013–2020), *AstroHackWeek* (five events, 2014–2017, 2020) *Preparing for TESS* (2018), *Telluric Line Hack Week* (2019), and the *Gaia Sprint* (five week-long events, 2016–2019).
Astronomy and Astrophysics Advisory Committee (established by the US Congress to advise NSF, NASA, and DOE on areas of mutual interest) 2014–2017.
NASA Extragalactic Database Users Committee, 2006–2013.
Sloan Digital Sky Survey III Collaboration Council, 2008–2011.
Panel Chair, *Spitzer Space Telescope* Time Allocation Committee, 2005.

Sloan Digital Sky Survey Collaboration Council, 1999–2004.
Leader, *Sloan Digital Sky Survey* Calibration Task Force, 2000–2003.
National Optical Astronomy Observatories Time Allocation Committee, 2000–2002.
Hubble Space Telescope Time Allocation Committee, 1999.

Honors

New York University "Golden Dozen" Teaching Award, 2004.
Princeton University Engineering Council Teaching Award, 2000.
Caltech Undergraduate Teaching Award, Associated Students of Caltech, 1996.
J. S. Stemple Memorial Prize, Caltech, for Physics PhD oral candidacy exam, 1995.
Phi Beta Kappa, 1992. Sigma Xi, 1992.
Award of merit, International Physics Olympiad, Bad Ischl, Austria, 1988.

Grants

NASA *TESS* Guest Investigator Grant (TBA; Angus, PI), *Measuring long rotation periods from TESS's short light curves,*, 50,000 USD, 2019–2021.

NASA *TESS* Guest Investigator Grant (TBA; Hogg, PI), *Halo Photometry of Naked-Eye Stars with TESS*, 50,000 USD, 2019–2021.

NASA Astrophysics Data Analysis Grant (80NSSC19K0533; Bean, PI), *Improving the sensitivity of radial velocity spectrographs with data-driven techniques*, 308,326 USD, 2019–2021.

NSF Cyberinfrastructure for Emerging Science and Engineering Research Grant (OAC-1841594; Hogg, PI), *Collaborative Research: Community Planning for Scalable Cyberinfrastructure to Support Multi-Messenger Astrophysics*, 36,469 USD, 2018–2019.

NSF Astronomy and Astrophysics Research Grant (AST-1517237; Hogg, PI), *New Probabilistic Methods for Observational Cosmology*, 328,312 USD, 2015–2019.

Moore Foundation and Sloan Foundation Joint Grant (LeCun, PI), *The Moore-Sloan Data Science Environment at NYU*, 12,600,000 USD (approx), 2013–2018.

NASA *K2* Guest Observer grant (NNX16AC70G; Hogg, PI), *Ultra-precise photometry in crowded fields: A self-calibration approach*, 100,000 USD, 2016–2017.

NASA Astrophysics Data Analysis Grant (NNX12AI50G; Hogg, PI), *The Lives and Deaths of Planets and Stars in the Value-Added UV Photon Catalog*, 473,705 USD, 2012–2017.

NSF Cyber-Enabled Discovery Type I Grant (IIS-1124794; Hogg, PI), *A Unified Probabilistic Model of Astronomical Imaging,* 675,000 USD, 2011–2016.

NASA *Hubble Space Telescope* Archival Resarch grant (AR-13250; Hogg, PI), *Probabilistic Self-Calibration of the WFC3 IR Channel*, 119,988 USD, 2013–2016.

NSF Astronomy and Astrophysics Research Grant (AST-0908357; Hogg, PI), *Dynamical models from kinematic data: The Milky Way Disk and Halo,* 147,000 USD, 2009–2011.

Alexander von Humboldt Foundation Research Fellowship (Hogg, PI), *Cosmology with the proper motions of stars,* 32,000 EUR (approx), 2008–2011.

NASA Astrophysics Data Analysis Grant (NNX08AJ48G; Hogg, PI), *Multi-wavelength astrometric catalog built from NASA data,* 277,415 USD, 2008–2011.

Amazon Web Services Research Grant (Koposov, PI) *Searching for tidal streams in the Milky Way Halo,* 40,000 CPU-hours (approx), 2009–2010.

NASA *Spitzer Space Telescope* General Observer Grant (*Spitzer* programs 50568 and 50569; Schiminovich, PI), *S5: Spitzer–SDSS Statistical Spectroscopic Survey,* 350,000 USD (approx), 2008–2010.

Google Research Grant (Blanton, PI), *Beautiful and correct SDSS images for Google Sky,* 86,000 USD, 2008–2009.

NASA Long-Term Space Astrophysics Grant (NAG5-11669; Hogg, PI), *Tools for Galaxy Astrophysics in the Era of the Space Infrared Telescope Facility*, 498,770 USD, 2002–2007.

NSF Information Technology Research Grant (AST-0428465; Hogg, PI), *Automated Astrometry for Time-Domain and Distributed Astrophysics,* 504,140 USD, 2004–2007.

NASA *Spitzer Space Telescope* General Observer Grant (*Spitzer* program 20120; Hogg, PI), *A search for PAH emission in extremely low luminosity galaxies,* 59,243 USD, 2005–2007.

NASA *Galaxy Evolution Explorer* Archival Research Grant (Blanton, PI), *K-corrections*

for GALEX, 42,500 USD, 2004–2005.

NASA *Hubble Space Telescope* Archival Research Grant (Blanton, PI), *Comparing the ACS Ultra Deep Field to Low Redshift Galaxy Observations,* 70,000 USD, 2003–2004.

NSF Group Grant (PHY-0101738; Farrar, PI), *Theoretical Particle Physics, Astrophysics and Cosmology,* 686,000 USD (+16,000 USD in REU supplement), 2001–2004.

NASA Hubble Postdoctoral Fellowship, 1997–2000.

NSF Graduate Fellowship, 1992–1995.

PhDs supervised

Morad Masjedi, 2007, *Massive galaxy merging and cosmogony,* PhD thesis, New York University.

Dustin Lang, 2009, *Astrometry.net: Automatic recognition and calibration of astronomical images*, PhD thesis, University of Toronto (co-supervised by Sam Roweis at Toronto).

Ronin Wu, 2010, *Tracing star formation in the mid-infrared*, PhD thesis, New York University.

Jo Bovy, 2011, *Dynamical inference in the Milky Way*, PhD thesis, New York University.

Adi Zolotov, 2011, *The dual origin of stellar halos*, PhD thesis, New York University (co-supervised by Beth Willman at Haverford).

Tao Jiang, 2012, *Galaxy mergers and galaxy evolution*, PhD thesis, New York University.

Fengji Hou, 2014, *Bayesian inference on stellar radial velocity data*, PhD thesis, New York University (co-supervised by Jonathan Goodman at NYU).

Daniel Foreman-Mackey, 2015, *Methods for the detection and characterization of exoplanets and their population*, PhD thesis, New York University.

Mohammadjavad Vakili, 2017, *Methods in computational cosmology*, PhD thesis, New York University.

Dun Wang, 2018, *Methods for the calibration of astronomical imaging data*, PhD thesis, New York University.

Alex Malz, 2019, *Probabilistic analysis methods for cosmology using uncertainty-dominated photometric data*, PhD thesis, New York University.

Kate Storey-Fisher, current PhD student.

Postdoctoral scholars supervised and co-supervised

Lauren Anderson, Megan Bedell, Andreas A. Berlind, Michael R. Blanton, Katie Breivik, Lisa Bugnet, Trevor David, Ross Fadely, Richard Galvez, Daniela Huppenkothen, Boris Leistedt, Rodrigo Luger, Sarah Pearson, Gabe Perez-Giz, Sarah Pearson, Benjamin J. S. Pope, Adrian M. Price-Whelan, Erin Sheldon, Beth Willman.

233 Refereed publications

1. Hogg, D. W., Quinlan, G. D., & Tremaine, S., 1991, Dynamical limits on dark matter in the Solar System, *Astron. J.* **101** 2274–2286.
2. Hogg, D. W., Jackson, C., Żytkow, A. N., Irwin, M., Webster, R., & Tremaine, S., 1994, A photographic search for satellites of Neptune, *Icarus* **107** 304–310.
3. Hogg, D. W. & Blandford, R. D., 1994, The gravitational lens system B1422+231: Dark matter, superluminal expansion and the Hubble Constant, *Mon. Not. R. Astr. Soc.* **268** 889–893.
4. Djorgovski, S. *et al.*, 1995, Deep galaxy counts in the K band with the Keck Telescope, *Astrophys. J. Lett.* **438** L13–L16.
5. Smail, I., Hogg, D. W., Yan, L., & Cohen, J. G., 1995, Deep optical galaxy counts with the Keck Telescope, *Astrophys. J. Lett.* **449** L105–L108.
6. Smail, I., Hogg, D. W., Blandford, R., Cohen, J. G., Edge, A. C., & Djorgovski, S. G., 1995, Discovery of two giant arcs in the rich cluster A2219 with the Keck Telescope, *Mon. Not. R. Astr. Soc.* **277** 1–10.
7. Eisenhardt, P. R., Armus, L., Hogg, D. W., Soifer, B. T., Neugebauer, G., & Werner, M. W., 1996, *Hubble Space Telescope* observations of the luminous IRAS source FSC10214+4724: A gravitationally lensed infrared quasar, *Astrophys. J.* **461** 72–83.
8. Cohen, J. G., Hogg, D. W., Pahre, M. A., & Blandford, R., 1996, Strong redshift clustering of distant galaxies, *Astrophys. J. Lett.* **462** L9–L12.
9. Hogg, D. W., Blandford, R., Kundić, T., Fassnacht, C. D., & Malhotra, S., 1996, A

candidate gravitational lens in the Hubble Deep Field, *Astrophys. J. Lett.* **467** L73–L75.

10. Cohen, J. G., Cowie, L. L., Hogg, D. W., Songaila, A., Blandford, R., Hu, E. M., & Shopbell, P., 1996, Redshift clustering in the Hubble Deep Field, *Astrophys. J. Lett.* **471** L5–L9.
11. Hogg, D. W., Neugebauer, G., Armus, L., Matthews, K., Pahre, M. A., Soifer, B. T., & Weinberger, A. J., 1997, Near infrared imaging of the Hubble Deep Field with the Keck Telescope, *Astron. J.* **113** 474–482. Associated erratum: *Astron. J.* **113** 2338.
12. Reid, I. N., Gizis, J. E., Cohen, J., Pahre, M. A., Hogg, D. W., Cowie, L., Hu, E., & Songaila, A., 1997, Faint M dwarfs and the structure of the Galactic disk, *Pubs. Astr. Soc. Pac.* **109** 559–565.
13. Hogg, D. W., Pahre, M. A., McCarthy, J. K., Cohen, J. G., Blandford, R., Smail, I., & Soifer, B. T., 1997, Counts and colours of faint galaxies in the U and R bands, *Mon. Not. R. Astr. Soc.* **288** 404–410.
14. Hogg, D. W. & Phinney, E. S., 1997, The fading of young stellar populations and the luminosity functions of dwarf, irregular and starburst galaxies, *Astrophys. J. Lett.* **488** L95–L99.
15. Kundić, T., Hogg, D. W., Blandford, R. D., Cohen, J. G., Lubin, L. M., & Larkin, J. E., 1997, The external shear acting on gravitational lens B1422+231, *Astron. J.* **114** 2276–2283.
16. Hogg, D. W., 1998, *On the evolution of field galaxies*, PhD thesis, California Institute of Technology.
17. Hogg, D. W. *et al.*, 1998, A blind test of photometric redshift prediction, *Astron. J.* **115** 1418–1422.
18. Hogg, D. W., & Turner, E. L., 1998, A maximum likelihood method for improving faint source flux and color estimates, *Pubs. Astr. Soc. Pac.* **110** 727–731.
19. Hogg, D. W., Cohen, J. G., Blandford, R., & Pahre, M. A., 1998, The O II luminosity density of the Universe, *Astrophys. J.* **504** 622–628.
20. Sykes, C. M. *et al.*, 1998, The complex gravitational lens system B1933+503, *Mon. Not. R. Astr. Soc.* **301** 310–314.
21. Nguyen, H. T., Eisenhardt, P. R., Werner, M. W., Goodrich, R., Hogg, D. W., Armus, L., Soifer, B. T., & Neugebauer, G., 1998, Imaging polarimetry of the gravitational lens FSC10214+4724, *Astron. J.* **117** 671–676.
22. Cohen, J. G., Blandford, R., Hogg, D. W., Pahre, M. A., & Shopbell, P. L., 1999, Caltech Faint Field Galaxy Redshift Survey. VIII. Analysis of the field J0053+1234, *Astrophys. J.* **512** 30–47.
23. Cohen, J. G., Hogg, D. W., Pahre, M. A., Blandford, R., Shopbell, P., & Richberg, K., 1999, Caltech Faint Field Galaxy Redshift Survey. VII. Data analysis techniques and redshifts in the field J0053+1234, *Astrophys. J. Suppl. Ser.* **120** 171–178.
24. Barkana, R., Blandford, R., & Hogg, D. W., 1999, A possible gravitational lens in the Hubble Deep Field South, *Astrophys. J. Lett.* **513** L91–L94.
25. Fruchter, A. S. *et al.*, 1999, *Hubble Space Telescope* and Palomar imaging of GRB 990123: Implications for the nature of gamma-ray bursts and their hosts, *Astrophys. J. Lett.* **519** L13–L16.
26. Hogg, D. W. & Fruchter, A. S., 1999, The faint-galaxy hosts of gamma-ray bursts, *Astrophys. J.* **520** 54–58.
27. Carlberg, R. G. *et al.*, 2000, Caltech Faint Galaxy Redshift Survey. XI. The merger rate to redshift 1 from kinematic pairs, *Astrophys. J. Lett.* **532** L1–L4.
28. Hogg, D. W., Pahre, M. A., Adelberger, K. L., Blandford, R., Cohen, J. G., Gautier, T. N., Jarrett, T., Neugebauer, G., & Steidel, C. C., 2000, Caltech Faint Field Galaxy Redshift Survey. IX. Source detection and photometry in the Hubble Deep Field region, *Astrophys. J. Suppl. Ser.* **127** 1–9.
29. Hogg, D. W., Neugebauer, G., Cohen, J. G., Dickinson, M. E., Djorgovski, S. G., Matthews, K., & Soifer, B. T., 2000, Three-micron imaging of the Hubble Deep Field, *Astron. J.* **119** 1519–1525.
30. Cohen, J. G., Hogg, D. W., Blandford, R., Cowie, L. L., Hu, E., Songaila, A., Shopbell, P., & Richberg, K., 2000, Caltech Faint Galaxy Redshift Survey. X. A redshift survey in the region of the Hubble Deep Field North, *Astrophys. J.* **538** 29–52.

31. van den Bergh, S., Cohen, J. G., Hogg, D. W., & Blandford, R., 2000, Caltech Faint Galaxy Redshift Survey. XIV. Galaxy morphology in the HDF (North) and its flanking fields to $z = 1.2$, *Astron. J.* **120** 2190–2205.
32. Hogg, D. W., Cohen, J. G., & Blandford, R., 2000, The Caltech Faint Galaxy Redshift Survey. XII. Clustering of galaxies, *Astrophys. J.* **545** 32–42.
33. Hogg, D. W., 2001, Confusion errors in astrometry and counterpart association, *Astron. J.* **121** 1207–1213.
34. Blanton, M. R. *et al.*, 2001, The luminosity function of galaxies in *SDSS* commissioning data, *Astron. J.* **121** 2358–2380.
35. Smette, A. *et al.*, 2001, *Hubble Space Telescope/STIS* observations of GRB 000301C: CCD imaging and *NUV MAMA* spectroscopy, *Astrophys. J.* **556** 70–76.
36. Yasuda, N. *et al.*, 2001, Galaxy number counts from the *Sloan Digital Sky Survey* commissioning data, *Astron. J.* **122** 1104–1124.
37. Hogg, D. W., Finkbeiner, D. P., Schlegel, D. J., & Gunn, J. E., 2001, A photometricity and extinction monitor at the Apache Point Observatory, *Astron. J.* **122** 2129–2138.
38. Eisenstein, D. J. *et al.*, 2001, Spectroscopic target selection for the *Sloan Digital Sky Survey*: The Luminous Red Galaxy Sample, *Astron. J.* **122** 2267–2280.
39. Stoughton, C. *et al.*, 2002, *Sloan Digital Sky Survey*: Early Data Release, *Astron. J.* **123** 485–548.
40. Schneider, D. P. *et al.*, 2002, The *Sloan Digital Sky Survey* Quasar Catalog. I. Early Data Release, *Astron. J.* **123** 567–577.
41. Hogg, D. W. *et al.*, 2002, The luminosity density of red galaxies, *Astron. J.* **124** 646–651.
42. Eisenstein, D. J., Hogg, D. W., *et al.*, 2003, Average spectra of massive galaxies in the *SDSS*, *Astrophys. J.* **585** 694–713.
43. Hogg, D. W. *et al.*, 2003, The overdensities of galaxy environments as a function of luminosity and color, *Astrophys. J. Lett.* **585** L5–L9.
44. Bernardi, M. *et al.*, 2003, Early-type galaxies in the *SDSS*. I. The sample, *Astron. J.* **125** 1817–1848.
45. Bernardi, M. *et al.*, 2003, Early-type galaxies in the *SDSS*. II. Correlations between observables, *Astron. J.* **125** 1849–1865.
46. Bernardi, M. *et al.*, 2003, Early-type galaxies in the *SDSS*. III. The fundamental plane, *Astron. J.* **125** 1866–1881.
47. Blanton, M. R., Brinkmann, J., Csabai, I., Doi, M., Eisenstein, D., Fukugita, M., Gunn, J. E., Hogg, D. W., & Schlegel, D. J., 2003, Estimating fixed-frame galaxy magnitudes in the *SDSS*, *Astron. J.* **125** 2348–2360.
48. Blanton, M. R. *et al.*, 2003, The galaxy luminosity function and luminosity density at redshift $z = 0.1$, *Astrophys. J.* **592** 819–838.
49. Blanton, M. R., Hogg, D. W., *et al.*, 2003, The broadband optical properties of galaxies with redshifts $0.02 < z < 0.2$, *Astrophys. J.* **594** 186–207.
50. Abazajian, K. *et al.*, 2003, The First Data Release of the *Sloan Digital Sky Survey*, *Astron. J.* **126** 2081–2086.
51. Hogg, D. W. *et al.*, 2004, The dependence on environment of the color–magnitude relation of galaxies, *Astrophys. J. Lett.* **601** L29–L32.
52. Quintero, A. D., Hogg, D. W., *et al.*, 2004, Selection and photometric properties of K+A galaxies, *Astrophys. J.* **602** 190–199.
53. Lupton, R., Blanton, M. R., Fekete, G., Hogg, D. W., O'Mullane, W., Szalay, A., & Wherry, N., 2004, Preparing red-green-blue images from CCD data, *Pubs. Astr. Soc. Pac.* **116** 133–137.
54. Tegmark, M. *et al.*, 2004, The three-dimensional power spectrum of galaxies from the *Sloan Digital Sky Survey*, *Astrophys. J.* **606** 702–740.
55. Tegmark, M. *et al.*, 2004, Cosmological parameters from *SDSS* and *WMAP*, *Phys. Rev. D* **69** 103501.
56. Abazajian, K. *et al.*, 2004, The Second Data Release of the *Sloan Digital Sky Survey*, *Astron. J.* **128** 502–512.
57. Finkbeiner, D. P. *et al.*, 2004, *Sloan Digital Sky Survey* imaging of low Galactic latitude fields: Technical summary and data release, *Astron. J.* **128** 2577–2592.

58. Abazajian, K. *et al.*, 2005, The Third Data Release of the *Sloan Digital Sky Survey*, *Astron. J.* **129** 1755–1759.
59. Zehavi, I., *et al.*, 2005, The intermediate-scale clustering of luminous red galaxies, *Astrophys. J.* **621** 22–31.
60. Hogg, D. W., Eisenstein, D. J., Blanton, M. R., Bahcall, N. A., Brinkmann, J., Gunn, J. E., & Schneider, D. P., 2005, Cosmic homogeneity demonstrated with luminous red galaxies, *Astrophys. J.* **624** 54–58.
61. Hogg, D. W., Tremonti, C. A., Blanton, M. R., Finkbeiner, D. P., Padmanabhan, N., Quintero, A. D., Schlegel, D. J., & Wherry, N., 2005, Mid-infrared and visible photometry of galaxies: Anomalously low polycyclic aromatic hydrocarbon emission from low-luminosity galaxies, *Astrophys. J.* **624** 162–167.
62. Blanton, M. R. *et al.*, 2005, New York University Value-Added Galaxy Catalog: A galaxy catalog based on new public surveys, *Astron. J.* **129** 2562–2578.
63. Willman, B., Blanton, M. R., West, A. A., Dalcanton, J. J, Hogg, D. W., Schneider, D. P., Wherry, N., Yanny, B., & Brinkmann, J., 2005, A new Milky Way companion: Unusual globular cluster or extreme dwarf satellite?, *Astron. J.* **129** 2692–2700.
64. Willman, B. *et al.*, 2005, A new Milky Way dwarf galaxy in Ursa Major, *Astrophys. J. Lett.* **626** L85–L88.
65. Blanton, M. R., Eisenstein, D. J., Hogg, D. W., Schlegel, D. J., & Brinkmann, J., 2005, The relationship between environment and the broad-band optical properties of galaxies in the *Sloan Digital Sky Survey*, *Astrophys. J.* **629** 143–157.
66. Hogg, D. W., Blanton, M. R., Roweis, S. T., & Johnston, K. V., 2005, Modeling complete distributions with incomplete observations: The velocity ellipsoid from *Hipparcos* data, *Astrophys. J.* **629** 268–275.
67. Berlind, A. A., Blanton, M. R., Hogg, D. W., Weinberg, D. H., Davé, R., Eisenstein, D. J., & Katz, N., 2005, Interpreting the relationship between galaxy luminosity, color and environment, *Astrophys. J.* **629** 625–632.
68. Eisenstein, D. J., Zehavi, I., Hogg, D. W., *et al.*, 2005, Detection of the baryon acoustic peak in the large-scale correlation function of *Sloan Digital Sky Survey* Luminous Red Galaxies, *Astrophys. J.* **633** 560–574.
69. Adelman-McCarthy, J. K. *et al.*, 2006, The Fourth Data Release of the *Sloan Digital Sky Survey*, *Astrophys. J. Suppl. Ser.* **162** 38–48.
70. Farrar, G. F., Berlind, A. A., & Hogg, D. W., 2006, Foreground and source of a cluster of ultra–high-energy cosmic rays, *Astrophys. J.* **642** L89–L93.
71. Cool, R. J., Eisenstein, D. J., Hogg, D. W., Blanton, M. R., Schlegel, D. J., Brinkmann, J., Schneider, D. P., & Vanden Berk, D. E., 2006, *SDSS* pre-burst observations of recent gamma-ray burst fields, *Pubs. Astr. Soc. Pac.* **118** 733–739.
72. Masjedi, M., Hogg, D. W., *et al.*, 2006, Very small-scale clustering and merger rate of luminous red galaxies, *Astrophys. J.* **644** 54–60.
73. Blanton, M. R., Eisenstein, D. J., Hogg, D. W., & Zehavi, I. I., 2006, The scale-dependence of relative galaxy bias: Encouragement for the "halo model" description, *Astrophys. J.* **645** 977–985.
74. Tucker, D. L. *et al.*, 2006, The *Sloan Digital Sky Survey* Monitor Telescope pipeline, *Astron. Nachr.* **327** 821–843.
75. Hogg, D. W., Masjedi, M., Berlind, A. A., Blanton, M. R., Quintero, A. D., & Brinkmann, J., 2006, What triggers galaxy transformations? The environments of post-starburst galaxies, *Astrophys. J.* **650** 763–769.
76. Berlind, A. A. *et al.*, 2006, Percolation galaxy groups and clusters in the *SDSS* Redshift Survey: Identification, catalogs, and the multiplicity function, *Astrophys. J. Suppl. Ser.* **167** 1–25.
77. Tegmark, M., *et al.*, 2006, Cosmological constraints from the *SDSS* Luminous Red Galaxies, *Phys. Rev. D* **74** 123507.
78. Schneider, D. P., *et al.*, 2007, The *Sloan Digital Sky Survey* Quasar Catalog IV: Fifth Data Release, *Astron. J.* **134** 102–117.
79. Padmanabhan, N., *et al.*, 2007, The clustering of luminous red galaxies in the *Sloan Digital Sky Survey* imaging data, *Mon. Not. R. Astr. Soc.* **378** 852–872.
80. Adelman-McCarthy, J. K. *et al.*, 2007, The Fifth Data Release of the *Sloan Digital Sky*

Survey, *Astrophys. J. Suppl. Ser.* **172** 634–644.

81. Barron, J. T., Stumm, C., Hogg, D. W., Lang, D., & Roweis, S., 2008, Cleaning the *USNO-B Catalog* through automatic detection of optical artifacts, *Astron. J.* **135** 414–422.
82. Padmanabhan, N., *et al.*, 2008, An improved photometric calibration of the *Sloan Digital Sky Survey* imaging data, *Astrophys. J.* **674** 1217–1233.
83. Adelman-McCarthy, J. K. *et al.*, 2008, The Sixth Data Release of the *Sloan Digital Sky Survey*, *Astrophys. J. Suppl. Ser.* **175** 297–313.
84. Masjedi, M., Hogg, D. W., & Blanton, M. R., 2008, The growth of luminous red galaxies by merging, *Astrophys. J.* **679** 260–268.
85. Bell, E. F., *et al.*, 2008, The accretion origin of the Milky Way's stellar halo, *Astrophys. J.* **680** 295–311.
86. Barron, J. T., Hogg, D. W., Lang, D., & Roweis, S., 2008, Blind Date: Using proper motions to determine the ages of historical images, *Astron. J.* **136** 1490–1501.
87. Bovy, J., Hogg, D. W., & Moustakas, J., 2008, The transparency of galaxy clusters, *Astrophys. J.* **688** 198–207.
88. Maller, A. H., Berlind, A. A., Blanton, M. R., & Hogg, D. W., 2009, The intrinsic properties of *SDSS* galaxies, *Astrophys. J.* **691** 394–406.
89. Marshall, P. J., Hogg, D. W., Moustakas, L. A., Fassnacht, C. D., Bradač, M., Schrabback, T., & Blandford, R. D., 2009, Automated detection of galaxy-scale gravitational lenses in high-resolution imaging data, *Astrophys. J.* **694** 924–942.
90. Lang, D., Hogg, D. W., Jester, S., & Rix, H.-W., 2009, Measuring the undetectable: Proper motions and parallaxes of very faint sources, *Astron. J.* **137** 4400–4411.
91. More, S., Bovy, J., & Hogg, D. W., 2009, Cosmic transparency: A test with the baryon acoustic feature and type Ia supernovae, *Astrophys. J.* **696** 1727–1732.
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Invited talks

List available upon request.