

Curriculum Vitae: Michael R. Blanton

January 13, 2023

ADDRESS:

726 Broadway, Rm. 941
Department of Physics
New York University
New York, NY 10003
(212) 998-7770
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DEGREES:

- 1999 **Ph.D.**, Astrophysics, Princeton University, Princeton, NJ
“Realistic Galaxy Formation Models and Large-Scale Structure Statistics”
Dr. Michael A. Strauss and Dr. Jeremiah P. Ostriker, advisors
<http://cosmo.nyu.edu/blanton/thesis/>
- 1997 **M.A.**, Astrophysics, Princeton University, Princeton, NJ
- 1995 **B.S.**, Applied & Engineering Physics, Cornell University, Ithaca, NY

EMPLOYMENT:

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|------------------------|---|
| Sep. 2018 — present | Professor, Dept. of Physics, New York University |
| Sep. 2011 — Aug. 2018 | Associate Professor, Dept. of Physics, New York University |
| Sep. 2005 — Aug. 2011 | Assistant Professor, Dept. of Physics, New York University |
| Sep. 2001 — Aug. 2005 | Research Scientist, Dept. of Physics, New York University |
| Nov. 1999 — Aug. 2001 | Research Associate, Theoretical Astrophysics Group,
Fermi National Accelerator Laboratory |
| Sept. 1995 — Oct. 1999 | Research Assistant, Dept. of Astrophysics, Princeton Univ.,
advisors Jeremiah P. Ostriker & Michael A. Strauss |
| June 1993 — Aug. 1995 | Research Assistant, Dept. of Astronomy, Cornell University,
advisors Saul A. Teukolsky & Stuart Shapiro |

CURRENT PROJECTS:

- Sloan Digital Sky Survey V (Advisory Council member)
The NASA-Sloan Atlas of galaxies (<http://nsatlas.org>)

ADVISING:

Supervised postdoctoral researchers John Moustakas, Demitri Muna, Ben Weaver, and Renbin Yan

Advised graduate students Nitya Doddamane (PhD, 2019), Nicholas Faucher, Eyal Kazin (PhD, 2011), ChangHoon Hahn (PhD, 2017), Sicheng Lin (PhD, 2021), Dou Liu (PhD, 2021), Arjun Suresh, Janelle Sy, Ben Roig (PhD, 2015), Zhongxu Zhai (PhD, 2018), and Guangtun Zhu (PhD, 2011)

Advised undergraduates Christina Ignarra, Vaishali Bhardwaj, Dimitri Apostol, Malcolm Britton, Otar Seppar, Alejandro Quintero, Nik Wherry, Adrian Price-Whelan, Jared Crooks, Jason Angell, Patrick Healey, Jayda Robison, and Noah Johnson

NYU thesis defense committee member for Morad Masjedi (2006), Sebastián Pueblas (2008), Brian Kolterman (2008), Ronin Wu (2010), Jo Bovy (2011), Grant Christopher (2011), Adi Zolotov (2011), Tao Jiang (2012), Fengji Hou (2014), Daniel Foreman-Mackey (2015), Mohammadjavad Vakili (2017), Yuqian Liu (2017), Yike Tang (2018), Alex Malz (2019), Yiyang Wu (2019), Jason Cao (2021), Yucheng Zhang (2022)

UNIVERSITY SERVICE:

SDSS-V Lead Scientist for NYU (Spring 2018 to present)

Physics Equity and Inclusion Committee (Fall 2020 to present)

Center for Cosmology and Particle Physics Director (Fall 2019 to present)

Physics Faculty Meeting Secretary (Fall 2017 to Spring 2019, Fall 2020 to present)

SDSS-IV Lead Scientist for NYU (Fall 2012 to Fall 2021)

Physics Representative to FAS Faculty Assembly (Fall 2015 to Spring 2019)

Physics Honors and Nominations Committee (Fall 2016 to Spring 2017)

Physics Faculty Recruiting Committee (Fall 2015 to Spring 2016)

Physics Graduate Committee (Fall 2014 to Spring 2016)

SDSS-III Lead Scientist for NYU (Fall 2008 to Fall 2014)

NYUAD Physics Faculty Recruiting Committee (Spring 2013)

Physics Undergraduate Committee (Fall 2010 to Spring 2013)

Physics Executive Committee (Fall 2009 to Spring 2012)

Physics Graduate Recruiting Committee (Fall 2007 to Spring 2008, Fall 2009 to Spring 2011)

Physics Colloquium Committee (Fall 2009 to Spring 2010)

University Library Committee (Fall 2008 to Spring 2010)

Library Liaison Committee (Fall 2007 to Spring 2008)

Science Faculty Advisory Committee (Fall 2007 to Spring 2008)

Physics Graduate Curriculum Committee (Fall 2006 to Spring 2008)

Physics Space Committee (Fall 2005 to Spring 2008)

Physics Library Committee (Fall 2005 to Spring 2006)

COURSES**TAUGHT:**

Observational Astronomy: Spring 2010, Spring 2011, Spring 2012, Spring 2016, Spring 2018, Spring 2019, Fall 2021, Fall 2022 (PHYS-UA 13)

Extragalactic Astrophysics: Spring 2007 (G85.2054); Fall 2008, Fall 2010 (G85.2051), Fall 2012, Fall 2014, Fall 2016, Fall 2018, Fall 2020, Fall 2022 (PHYS-GA 2051)

Radiative Processes in Astrophysics: Spring 2021 (PHYS-GA 2053)

The Universe: Its Nature and History: Spring 2020 (PHYS-UA 7)

Computational Physics: Fall 2017, Fall 2019 (PHYS-UA 210)

Astrophysics: Fall 2006 (V85.0150); Fall 2012, Fall 2014, Fall 2016 (PHYS-UA 150)

Dynamics: Fall 2011 (PHYS-UA 120)

Statistics for Cosmology and Astrophysics: Fall 2009 (G85.2053)

General Physics II: Spring 2008 (V85.0012)

Natural Science I: The Cosmos & the Earth: Fall 2007 (V55.0202)

**PROFESSIONAL
SERVICE:**

Wide Field Surveys vs Galaxy Formation Theory, Scientific Organizing Committee, March 2023
SDSS-V Advisory Council representative for Gotham Participation Group (Columbia, Flatiron Institute, NYU), November 2018 to present
SDSS-IV Director, January 2012 to December 2021
SPHEREx L4 Critical Design Review Committee (Chair), October 2021
NOIRLab Management Oversight Council (NMOC), July 2018 to June 2021
SDSS 2020 Collaboration Meeting Local Organizing Committee, June 2020
Decadal Survey on Astronomy and Astrophysics 2020 Panel on an Enabling Foundation for Research, September 2019 to October 2020
NASA Extragalactic Database User Committee, September 2013 to January 2020
SDSS-V Steering Committee Chair, February 2017 to November 2018
SnowPAC 2018, Session Organizer, March 2018
CosmoAndes 2018, Scientific Organizing Committee, January 2018
Large Synoptic Survey Telescope internal reviewer for NSF operations proposal, June 2017
NSF Astronomy and Astrophysics Research Grant panel, May 2017
The Interplay Between Local and Global Processes in Galaxies, Scientific Organizing Committee, March 2016
Dept. of Energy reviewer for Dark Energy Survey, May 2012, May 2013, April 2014, March 2016
Dept. of Energy reviewer for South Pole Telescope 3G, September 2014
SDSS-III Data Coordinator (2007–2013)
Tri-State Astronomy Conference, Local Organizing Committee, October 2009
Reviewer for National Radio Astronomy Observatory VLA proposals, 2008–2009
Reviewer for Anglo-Australian Telescope Allocation Committee, 2008–2010
Spitzer Space Telescope Time Allocation Committee panelist, April 2007
Scientific organizational committee member of German-American Frontiers of Science multi-disciplinary conference, jointly held by the National Academy of Sciences in the United States and the Alexander von Humboldt Foundation in Germany (2005).
External Ph.D. thesis reviewer for Michael Westover (CfA), Michel Zamojski (Columbia), Nicholas Bond (Princeton), Charles Conroy (Princeton), Abiy Tekola (University of Cape Town), Nikhil Arora (Queens University)
Referee for *Astrophysical Journal*, *Astronomical Journal*, *Monthly Notices of the Royal Astronomical Society*, and other publications.

GRANTS**AWARDED:**

“Collaborative Research: CDS&E: New Image Resampling Techniques for the Mapping Nearby Galaxies at Apache Point Observatory survey in the NASA Sloan Atlas”

(\$261,902) PI, NSF (NSF-AST-1909485),
07/2019–06/2021

“Fundamental Tests of Large Scale Cosmology”

(\$559,307) PI, NSF (NSF-AST-1615997),
06/2016–05/2019

“How Do Galaxies End Their Star Formation?”

(\$345,321) PI, NSF (NSF-AST-1211644),
09/2012–08/2013

“Testing Cosmology, Gravity and Inflation with BOSS”

(\$634,777) Co-PI (with PI Roman Scoccimarro), NSF (NSF-AST-1109432)
07/2011–07/2014

“Tracking Galaxy Growth with 200,000 Spectroscopic Redshifts”

(\$232,350), PI, NSF (NSF-AST-0908354),
09/2009–09/2012

“Tracking Galaxy Growth: GALEX, Spitzer and 135,000 Spectroscopic Redshifts”

(\$140,834), PI, NASA Astrophysics Data Program (08-ADP08-0019),
07/2009–06/2011, subcontracted from UC San Diego

“A NASA Sloan Atlas of the Nearby Galaxies”

(\$249,150), PI, NASA Astrophysics Data Program (08-ADP08-0072),
07/2009–06/2011

“Beautiful and correct SDSS images for Google Sky”

(\$86,000), PI (with co-I David Hogg), Google Research Award,
(07/2008–09/2009)

“PRIMUS: stellar mass growth since $z = 1$ with redshifts over 8 deg^2 of SWIRE”

(\$125,000), PI, Spitzer Space Telescope (Spitzer G05-AR-50443),
10/2008–09/2011

“Star-formation enhancements in merging galaxies”

(\$40,000), PI, GALEX Archival Research 2007 (NASA-07-GALEX07-0051),
03/2008–03/2009

“Star-formation in low luminosity galaxies”

(\$46,000), PI, GALEX Archival Research 2006 (NASA-06-GALEX06-0030),
03/2007–03/2008

“PRIMUS: Mapping the Universe at Redshift One”

(\$65,760), PI, NSF 2006–2008 (NSF-AST-0607701), 07/2006–07/2007

“K-corrections for the mid- and far-infrared”

(\$49,838), PI, Spitzer Space Telescope 2006–2008 (Spitzer G03-AR-30842),
10/2006–09/2007

“Low-luminosity galaxies as probes of galaxy formation physics”

(\$59,242), Co-I (with PI David Hogg), Spitzer Space Telescope
(Spitzer G02-GO-20120), 10/2005–05/2008

“Automated astrometry for time-domain and distributed astrophysics”

(\$504,140), Co-I (with PI David Hogg), NSF ITR 2004–2006
(NSF-AST-0428465), 09/2004–09/2006

“K-corrections for GALEX”

(\$42,500), PI, GALEX Archival Research 2004 (NASA GALEX AR #38),
02/2005–02/2006

“Comparing the ACS Ultra Deep Field to Low Redshift Galaxy Observations”

(\$70,000), PI, HST Archival Research 2003 (HST-AR-09912.01-A),
08/2003–07/2005

PROJECT

FUNDING:

“SDSS-IV Director”

(\$492,024), PI, Astrophysical Research Consortium
02/2012–11/2021

“BigBOSS Target Database”

(\$259,749), PI, Lawrence Berkeley National Laboratory
06/2012–07/2016

“SDSS-III Data Coordinator”

(\$710,924), PI, Astrophysical Research Consortium
07/2008–12/2014

ARC

GRANTS:

“SDSS Faculty And Student Team Program”

(\$530,000), PI, Sloan Foundation
2018–2021

“SDSS Faculty And Student Team & REU Programs”

(\$700,000), PI, Sloan Foundation
2015–2018

“APOGEE South Spectrograph”

(\$3,500,000), PI, Sloan Foundation
2014–2017

“Sloan Digital Sky Survey IV”

(\$10,000,000), PI, Sloan Foundation
2012–2021

MISCELLANY:

Fifteen first-author refereed papers with 100 or more citations.

Develop `kcorrect`, a public tool for analyzing galaxy photometry as a function of redshift, used by over 200 astronomers (and cited by over 1000 publications).

Maintain the New York University Value-Added Galaxy Catalog (NYU-VAGC; <http://sdss.physics.nyu.edu/vagc>) and the NASA-Sloan Atlas, used to study galaxies with public surveys (over 900 citations to these products).

“Astronomy: Topology Quest,” book review of J. Richard Gott’s “The Cosmic Web,” for *Nature*, Volume 530, Issue 7589

Invited author of Annual Reviews of Astronomy & Astrophysics article “Physical Properties and Environments of Nearby Galaxies”

Observe at du Pont 2.5m telescope, Kitt Peak National Observatory 4m telescope, Baade 6.5m telescope, Clay 6.5m telescope, Green Bank Observatory 100m telescope.

PUBLICATIONS:

- [1] Lin, S., Tinker, J. L., Blanton, M. R., Guo, H., Raichoor, A., Comparat, J., and Brownstein, J. R. 2022, *Abundance matching analysis of the emission line galaxy sample in the extended Baryon Oscillation Spectroscopic Survey*, MNRAS.
- [2] Sayres, C., Sánchez-Gallego, J. R., Blanton, M. R., Engelman, M., Finkbeiner, D. P., Hogg, D. W., Holtzman, J. A., Jurgenson, C., Pogge, R. W., Ramírez, S., Saydjari, A. K., Schlafly, E. F., and Tuttle, S. 2022. *SDSS-V robotic focal plane system: overview of coordinate systems and transforms*. In Evans, C. J., Bryant, J. J., and Motohara, K., editors, *Ground-based and Airborne Instrumentation for Astronomy IX*, volume 12184 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, page 121847K.
- [3] Weinberg, D. H., Holtzman, J. A., Johnson, J. A., Hayes, C., Hasselquist, S., Shetrone, M., Ting, Y.-S., Beaton, R. L., Beers, T. C., Bird, J. C., Bizyaev, D., Blanton, M. R., Cunha, K., Fernández-Trincado, J. G., Frinchaboy, P. M., García-Hernández, D. A., Griffith, E., Johnson, J. W., Jönsson, H., Lane, R. R., Leung, H. W., Mackereth, J. T., Majewski, S. R., Mészáros, S., Nitschelm, C., Pan, K., Schiavon, R. P., Schneider, D. P., Schultheis, M., Smith, V., Sobek, J. S., Stassun, K. G., Stringfellow, G. S., Vincenzo, F., Wilson, J. C., and Zasowski, G. 2022, *Chemical Cartography with APOGEE: Mapping Disk Populations with a 2-process Model and Residual Abundances*, ApJS, 260(2), 32.
- [4] Rockosi, C. M., Lee, Y. S., Morrison, H. L., Yanny, B., Johnson, J. A., Lucatello, S., Sobek, J., Beers, T. C., Allende Prieto, C., An, D., Bizyaev, D., Blanton, M. R., Casagrande, L., Eisenstein, D. J., Gould, A., Gunn, J. E., Harding, P., Ivans, I. I., Jacobson, H. R., Janesh, W., Knapp, G. R., Kollmeier, J. A., Lépine, S., López-Corredoira, M., Ma, Z., Newberg, H. J., Pan, K., Prchlik, J., Sayers, C., Schlesinger, K. J., Simmerer, J., and Weinberg, D. H. 2022, *SEGUE-2: Old Milky Way Stars Near and Far*, ApJS, 259(2), 60.
- [5] Abdurro'uf, Accetta, K., Aerts, C., Silva Aguirre, V., Ahumada, R., Ajgaonkar, N., Filiz Ak, N., Alam, S., Allende Prieto, C., Almeida, A., Anders, F., Anderson, S. F., Andrews, B. H., Anguiano, B., Aquino-Ortíz, E., Aragón-Salamanca, A., Argudo-Fernández, M., Ata, M., Aubert, M., Avila-Reese, V., Badenes, C., Barbá, R. H., Barger, K., Barrera-Ballesteros, J. K., Beaton, R. L., Beers, T. C., Belfiore, F., Bender, C. F., Bernardi, M., Bershady, M. A., Beutler, F., Bidin, C. M., Bird, J. C., Bizyaev, D., Blanc, G. A., Blanton, M. R., Boardman, N. F., Bolton, A. S., Boquien, M., Borissova, J., Bovy, J., Brandt, W. N., Brown, J., Brownstein, J. R., Brusa, M., Buchner, J., Bundy, K., Burchett, J. N., Bureau, M., Burgasser, A., Cabang, T. K., Campbell, S., Cappellari, M., Carlberg, J. K., Wanderley, F. C., Carrera, R., Cash, J., Chen, Y.-P., Chen, W.-H., Cherinka, B., Chiappini, C., Choi, P. D., Chojnowski, S. D., Chung, H., Clerc, N., Cohen, R. E., Comerford, J. M., Comparat, J., da Costa, L., Covey, K., Crane, J. D., Cruz-Gonzalez, I., Culhane, C., Cunha, K., Dai, Y. S., Damke, G., Darling, J., Davidson, James W., J., Davies, R., Dawson, K., De Lee, N., Diamond-Stanic, A. M., Cano-Díaz, M., Sánchez, H. D., Donor, J., Duckworth, C., Dwelly, T., Eisenstein, D. J., Elsworth, Y. P., Emsellem, E., Eracleous, M., Escoffier, S., Fan, X., Farr, E., Feng, S., Fernández-Trincado, J. G., Feuillet, D., Filipp,

A., Fillingham, S. P., Frinchaboy, P. M., Fromenteau, S., Galbany, L., García, R. A., García-Hernández, D. A., Ge, J., Geisler, D., Gelfand, J., Géron, T., Gibson, B. J., Goddy, J., Godoy-Rivera, D., Grabowski, K., Green, P. J., Greener, M., Grier, C. J., Griffith, E., Guo, H., Guy, J., Hadjara, M., Harding, P., Hasselquist, S., Hayes, C. R., Hearty, F., Hernández, J., Hill, L., Hogg, D. W., Holtzman, J. A., Horta, D., Hsieh, B.-C., Hsu, C.-H., Hsu, Y.-H., Huber, D., Huertas-Company, M., Hutchinson, B., Hwang, H. S., Ibarra-Medel, H. J., Chitham, J. I., Ilha, G. S., Imig, J., Jaekle, W., Jayasinghe, T., Ji, X., Johnson, J. A., Jones, A., Jönsson, H., Katkov, I., Khalatyan, Arman, D., Kinemuchi, K., Kisku, S., Knapen, J. H., Kneib, J.-P., Kollmeier, J. A., Kong, M., Kounkel, M., Kreckel, K., Krishnarao, D., Lacerna, I., Lane, R. R., Langgin, R., Lavender, R., Law, D. R., Lazarz, D., Leung, H. W., Leung, H.-H., Lewis, H. M., Li, C., Li, R., Lian, J., Liang, F.-H., Lin, L., Lin, Y.-T., Lin, S., Lintott, C., Long, D., Longa-Peña, P., López-Cobá, C., Lu, S., Lundgren, B. F., Luo, Y., Mackereth, J. T., de la Macorra, A., Mahadevan, S., Majewski, S. R., Manchado, A., Mandeville, T., Maraston, C., Margalef-Bentabol, B., Masseron, T., Masters, K. L., Mathur, S., McDermid, R. M., Mckay, M., Merloni, A., Merrifield, M., Meszaros, S., Miglio, A., Di Mille, F., Minniti, D., Minsley, R., Monachesi, A., Moon, J., Mosser, B., Mulchaey, J., Muna, D., Muñoz, R. R., Myers, A. D., Myers, N., Nadathur, S., Nair, P., Nandra, K., Neumann, J., Newman, J. A., Nidever, D. L., Nikakhtar, F., Nitschelm, C., O’Connell, J. E., Garma-Oehmichen, L., Luan Souza de Oliveira, G., Olney, R., Oravetz, D., Ortigoza-Urdaneta, M., Osorio, Y., Otter, J., Pace, Z. J., Padilla, N., Pan, K., Pan, H.-A., Parikh, T., Parker, J., Peirani, S., Peña Ramírez, K., Penny, S., Percival, W. J., Perez-Fournon, I., Pinsonneault, M., Poidevin, F., Poovelil, V. J., Price-Whelan, A. M., Bárbara de Andrade Queiroz, A., Raddick, M. J., Ray, A., Rembold, S. B., Riddle, N., Riffel, R. A., Riffel, R., Rix, H.-W., Robin, A. C., Rodríguez-Puebla, A., Roman-Lopes, A., Román-Zúñiga, C., Rose, B., Ross, A. J., Rossi, G., Rubin, K. H. R., Salvato, M., Sánchez, S. F., Sánchez-Gallego, J. R., Sanderson, R., Santana Rojas, F. A., Sarceno, E., Sarmiento, R., Sayres, C., Sazonova, E., Schaefer, A. L., Schiavon, R., Schlegel, D. J., Schneider, D. P., Schultheis, M., Schwöpe, A., Serenelli, A., Serna, J., Shao, Z., Shapiro, G., Sharma, A., Shen, Y., Shetrone, M., Shu, Y., Simon, J. D., Skrutskie, M. F., Smethurst, R., Smith, V., Sobek, J., Spoo, T., Sprague, D., Stark, D. V., Stassun, K. G., Steinmetz, M., Stello, D., Stone-Martinez, A., Storchi-Bergmann, T., Stringfellow, G. S., Stutz, A., Su, Y.-C., Taghizadeh-Popp, M., Talbot, M. S., Tayar, J., Telles, E., Teske, J., Thakar, A., Theissen, C., Tkachenko, A., Thomas, D., Tojeiro, R., Hernandez Toledo, H., Troup, N. W., Trump, J. R., Trussler, J., Turner, J., Tuttle, S., Unda-Sanzana, E., Vázquez-Mata, J. A., Valentini, M., Valenzuela, O., Vargas-González, J., Vargas-Magaña, M., Alfaro, P. V., Villanova, S., Vincenzo, F., Wake, D., Warfield, J. T., Washington, J. D., Weaver, B. A., Weijmans, A.-M., Weinberg, D. H., Weiss, A., Westfall, K. B., Wild, V., Wilde, M. C., Wilson, J. C., Wilson, R. F., Wilson, M., Wolf, J., Wood-Vasey, W. M., Yan, R., Zamora, O., Zasowski, G., Zhang, K., Zhao, C., Zheng, Z., Zheng, Z., and Zhu, K. 2022, *The Seventeenth Data Release of the Sloan Digital Sky Surveys: Complete Release of MaNGA, MaStar, and APOGEE-2 Data*, ApJS, 259(2), 35.

- [6] Alam, S., Aubert, M., Avila, S., Balland, C., Bautista, J. E., Bershady, M. A., Bizyaev, D., Blanton, M. R., Bolton, A. S., Bovy, J., Brinkmann, J., Brownstein, J. R., Burtin, E., Chabancier, S., Chapman, M. J., Choi, P. D., Chuang, C.-H., Comparat, J., Cousinou, M.-C., Cuceu, A., Dawson, K. S., de la Torre, S., de Mattia, A., Agathe, V. d. S., des Bourbonx, H. d. M., Escoffier, S., Etourneau, T., Farr, J., Font-Ribera, A., Frinchaboy, P. M., Fromenteau, S., Gil-Marín, H., Le Goff, J.-M., Gonzalez-Morales, A. X., Gonzalez-Perez, V., Grabowski, K., Guy, J.,

- Hawken, A. J., Hou, J., Kong, H., Parker, J., Klaene, M., Kneib, J.-P., Lin, S., Long, D., Lyke, B. W., de la Macorra, A., Martini, P., Masters, K., Mohammad, F. G., Moon, J., Mueller, E.-M., Muñoz-Gutiérrez, A., Myers, A. D., Nadathur, S., Neveux, R., Newman, J. A., Noterdaeme, P., Oravetz, A., Oravetz, D., Palanque-Delabrouille, N., Pan, K., Paviot, R., Percival, W. J., Pérez-Ràfols, I., Petitjean, P., Pieri, M. M., Prakash, A., Raichoor, A., Ravoux, C., Rezaie, M., Rich, J., Ross, A. J., Rossi, G., Ruggeri, R., Ruhlmann-Kleider, V., Sánchez, A. G., Sánchez, F. J., Sánchez-Gallego, J. R., Sayres, C., Schneider, D. P., Seo, H.-J., Shafieloo, A., Slosar, A., Smith, A., Stermer, J., Tamone, A., Tinker, J. L., Tojeiro, R., Vargas-Magaña, M., Variu, A., Wang, Y., Weaver, B. A., Weijmans, A.-M., Yèche, C., Zarrouk, P., Zhao, C., Zhao, G.-B., and Zheng, Z. 2021, *Completed SDSS-IV extended Baryon Oscillation Spectroscopic Survey: Cosmological implications from two decades of spectroscopic surveys at the Apache Point Observatory*, Phys. Rev. D, 103(8), 083533.
- [7] Sayres, C., Sánchez-Gallego, J. R., Blanton, M. R., Araujo, R., Bouri, M., Grossen, L., Kneib, J.-P., Kollmeier, J. A., Kronig, L., Pogge, R. W., and Tuttle, S. 2021, *SDSS-V Algorithms: Fast, Collision-free Trajectory Planning for Heavily Overlapping Robotic Fiber Positioners*, AJ, 161(2), 92.
- [8] Lin, S., Tinker, J. L., Klypin, A., Prada, F., Blanton, M. R., Comparat, J., Dawson, K. S., de Mattia, A., du Mas des Bourboux, H., Percival, W. J., Raichoor, A., Rossi, G., Smith, A., and Zhao, C. 2020, *The completed SDSS-IV extended Baryon Oscillation Spectroscopic Survey: GLAM-QPM mock galaxy catalogues for the emission line galaxy sample*, MNRAS, 498(4), 5251–5262.
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