

David Vincent Stark

Department of Physics and Astronomy
Haverford College
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EDUCATION

University of North Carolina at Chapel Hill

Ph.D. in Physics, Advisor: Sheila Kannappan 2012–2015
– Thesis: “Drivers of Galaxy Fueling”

University of North Carolina at Chapel Hill

M.S. in Physics, Advisor: Sheila Kannappan 2008–2012
– Thesis: “Linking Galaxy Molecular-to-Atomic Gas Ratios to Transient Evolutionary States”

University of Maryland at College Park

B.S. Physics, B.S. in Astronomy with High Honors, Thesis Advisor: Stacy McGaugh 2004–2008
– Thesis: “A First Attempt to Calibrate the Baryonic Tully-Fisher Relation with Gas-Dominated Galaxies”

RESEARCH EXPERIENCE

Haverford College

Postdoctoral Research Fellow September 2019 –present
– Supervisor: Karen L. Master
– Oversee observations and data reduction for the HI-MaNGA survey. Conduct research on topics related to galaxy evolution using MaNGA and HI-MaNGA data sets.

Kavli IPMU, University of Tokyo

Postdoctoral Research Fellow September 2015 –August 2019
– Independent research on topics related to galaxy evolution, including galaxy gas content and environment, conditions for star formation, nature of distortions in galaxy velocity fields

University of North Carolina at Chapel Hill

Graduate Student/Research Assistant September 2008 –August 2015
– Advisor: Sheila J. Kannappan
– M.S./PhD research on multiple topics relating to galaxy evolution: galaxy gas content and phase transformations, gas accretion, star formation, galaxy environments, high velocity clouds

University of Maryland at College Park

Undergraduate Honors Senior Thesis Research September 2007 –August 2008
– Advisor: Stacy S. McGaugh
– Honors senior thesis research on the Baryonic Tully-Fisher Relation using gas-dominated galaxies.

University of Maryland at College Park

Undergraduate Research Assistant October 2005 –August 2008
– Advisor: A. Surjalal Sharma
– Responsible for using computer models to simulate interactions between Earth’s magnetosphere and the solar wind.

TEACHING EXPERIENCE

- **Visiting Assistant Professor** at Haverford College January 2021 –present
Lead instructor for Classical and Modern Physics II (PHYS102)
- **Substitute Instructor** at Haverford College Fall 2019 –Spring 2020
Led a few classes for “Astronomical Ideas” (ASTR101), “Advanced Electricity and Magnetism” (PHYS304), and “Introduction to Astrophysics” (ASTR204)
- **Lead Instructor** at UNC Chapel Hill Fall 2013
Stars, Galaxies, and Cosmology (ASTR102)
- **Teaching Assistant** at UNC Chapel Hill Spring 2012
Stars, Galaxies, and Cosmology (ASTR102)
- **Teaching Assistant** at UNC Chapel Hill Fall 2008 –Spring 2009
Introductory Astronomy Lab (ASTR101L)

RESEARCH INTERESTS

- Galaxy gas content: its role in galaxy evolution and external influences
- Atomic-to-molecular transition in galaxies
- Conditions for star formation
- Nature and origin of high velocity clouds
- General galaxy evolution

TECHNICAL RESEARCH SKILLS

- Telescope observing experience: GBT, Arecibo, ALMA, ARO 12m, SOAR, SALT
- Proficient in Python, IDL, linux environment
- Single-dish radio telescope data reduction (with GBTIDL/CLASS)
- Radio interferometric (ALMA/VLA) data reduction (with CASA)
- Optical/IR imaging and spectroscopic data reduction (with IRAF)
- Multi-wavelength image analysis
- Multi-wavelength spectroscopic Analysis

STUDENTS ADVISED

- **Griffin Shapiro**, Middlebury College/KNAC Fellow Summer 2021 –present
- **Jacqueline Turner**, Haverford College Summer 2021 –present
- **Emily Frank**, Vassar College/KNAC Fellow Summer 2020 –present
- **Julian Goddy**, Haverford College Summer 2019 –present
- **Wilber Dominguez**, Swarthmore College/KNAC Fellow Summer 2020
- **Anubhav Sharma**, Haverford College Fall 2019 –present
Co-advised with Prof. Karen Masters
- **Sean Dillon**, California State University, Chico/KNAC Fellow Summer 2019
Co-advised with Prof. Karen Masters
- **Patricia Fofie**, Smith College/KNAC Fellow Summer 2019
Co-advised with Prof. Karen Masters
- **Nattida Samanso**, Chulalongkorn University Spring 2018

- Co-advised with Prof. Wiphu Rujopakarn*
- **Jin Soo Lim**, Stanford University Summer 2016
Co-advised with Prof. Alexie Leauthaud
 - **Katrina Litke**, University of Illinois Urbana-Champaign Summer 2013
Co-advised with Prof. Sheila Kannappan
 - **Ashley Baker**, UNC Chapel Hill Spring 2012 –2013
Co-advised with Prof. Sheila Kannappan

GRANTS AND AWARDS

- **ALMA Ambassador Program**, NRAO 2020
\$10,000 award
- **Dissertation Completion Fellowship**, The Royster Society of Fellows 2014 –2015
\$20,000 stipend, \$2,000 research
- **Student Observing Support**, NRAO 2013
\$32,600
- **GAANN Fellowship**, GAANN 2010, 2012
\$12,944
- **Outstanding Graduate Teaching Award - Honorable Mention**, UNC Dept. of Physics and Astronomy 2012
Awarded for Spring 2012 ASTR102 class
- **Graduate Research Fellowships**, NC Space Grant 2010
\$7,000
- **“A Search for Star Formation in the Smith Cloud” (GI60041)**, NASA GALEX 2009
\$35,000
- **Grants In Aid of Research**, Sigma Xi 2009
\$5,000

SUCCESSFUL PI TELESCOPE PROPOSALS

- **HI-MaNGA: HI followup for MaNGA Galaxies** 2020-2021
Green Bank Telescope, 580 hours (Fall 2020), 309 hours (fall 2021)
- **Exploratory Observations of CO(1-0) 115.271 GHz Emission in MaNGA Galaxies** 2019
Green Bank Telescope, Director’s Discretionary Time, 4.3 hours
- **Searching for the Emergence of Conformity in Nascent Groups** 2016
ALMA, 14.6 hours
- **Tracking Gas Accretion as a Function of Cosmic Structure** 2013 –2014
Green Bank Telescope, 191.2 hours (spring 2013), 80 hours (fall 2013), 175 hours (spring 2014)
- **Are Pseudobulge and Outer Disk Fueling Linked?** 2011
ARO 12m, 81 hours
- **Testing the Extreme-Blue Range of SALT/RSS for Quasar Absorption Line Studies** 2010
South African Large Telescope, 1.3 hours
- **Probing Gas Flows in the Blue Compact Dwarf, NGC 7077** 2011
South African Large Telescope, 4 hours
- **A Search for Star Formation in the Smith Cloud** 2009
NASA GALEX, 18000 seconds

SELECTED RESEARCH TALKS/SEMINARS

- Space Telescope Science Institute May 2021
Understanding galactic gas supplies and star formation efficiencies with the MaNGA and HI-MaNGA surveys
- University of Cape Town March 2021
Understanding galactic gas supplies with MaNGA and HI-MaNGA
- Swarthmore College March 2021
Understanding the galactic gas supply with MaNGA and HI-MaNGA
- APEC Seminar, Kavli IPNU, University of Tokyo March 2021
Invited Talk *Tracing the physics of the neutral and ionized ISM with the HI-MaNGA survey*
- American Astronomical Society 237th meeting January 2021
Tracing the physics of the neutral and ionized ISM with the HI-MaNGA survey
- University of Saint Andrews Seminar December 2020
Invited Talk *Tracing the physics of the neutral and ionized ISM with the HI-MaNGA survey*
- University of Kentucky Astronomy Seminar September 2020
Invited Talk *Tracing the physics of the neutral and ionized ISM with the HI-MaNGA survey*
- 40th Annual Central Pennsylvania Consortium Astronomers' Meeting (remote) June 2020
Exploring the Link Between Cold and Ionized Gas in the HI-MaNGA Galaxy Survey
- Multiphase Gas in Galaxy Groups June 2020*
Invited Talk, *Postponed due to COVID-19
- ALMA Community Day March 2020
All day workshop on radio interferometry and ALMA proposal preparation
- University of Pennsylvania Astronomy Seminar November 2019
Invited Talk *Gas Kinematic Distortions in the MaNGA Survey: Frequency, Impacts, Origins*
- American Astronomical Society 231st Meeting, Washington DC January 2018
Exploring the Origin of Kinematically Irregular Galaxies in MaNGA
- The Interplay Between Local and Global Processes in Galaxies, Cozumel, Mexico April 2016
Multiscale Environmental Influences on Galaxy Gas Reservoirs
- American Astronomical Society 227th meeting, Orlando, FL January 2016
Local and Large-Scale Environmental Influences on Galaxy Gas Content
- American Astronomical Society 225th Meeting, Seattle, WA December 2014
The Influence of Local and Large-Scale Environment on Galaxy Gas Reservoirs in the RESOLVE Survey
- The Galactic Gas Supply Workshop, Green Bank, WV May 2013
Invited Talk, *Searching for Star Formation in the Smith Cloud*
- Global Properties of HI in Galaxies Workshop, Green Bank, WV April 2012
Probing External Influences on Galaxy H₂/HI Ratios

OTHER PROFESSIONAL ACTIVITIES

- 2020 ALMA Ambassador
- Referee for the Astrophysical Journal
- NSF panel reviewer (spring 2020)
- Assisted with SDSS-IV information booth at American Astronomical Society 235th meeting
- SDSS-IV MaNGA tutorial writer (<https://www.sdss.org/dr16/manga/manga-tutorials/>)
- SOC for SDSS Collaboration Meeting (June 2018)

PUBLIC OUTREACH

- Ohio State University Monthly Movie Night - Science Fiction vs. Science Fact
Participated in panel of astronomers to discuss scientific accuracy of the movie "Contact" January 2021
- American Astronomical Society Student Outreach Event
Helped run activities for middle/high school students related to galaxy spectroscopy January 2020
- Haverford College Public Observing Night
Participated in an "ask an astronomer" panel December 2019
- SDSS Science Blog Article
"Getting a handle on MaNGA's cold gas with the HI-MaNGA survey" January 2019
- Science Cafe "Universe"
Public talk entitled "The birth, growth, and death of galaxies" given at Tamarokuto Science Center, Tokyo, Japan July 2017
- North Carolina Science Expo
Organized the "Make Your Own Galaxy" booth designed for kids April 2014
- "Astronomy Days" at the North Carolina Museum of Natural Science
Helped run various booths pertaining to astronomical concepts (the seasons, moon phases, Drake's Equation, galaxy classification, and atomic spectra); primarily for kids January 2014
- Chapel Hill Astronomy Club
Gave overview of radio and IR astronomy for an adult audience of amateur astronomers December 2013
- UNC Science Expo
Participated in a "Make Your Own Galaxy" booth designed for kids April 2012
- Greensboro Astronomy Club
Gave overview of gas in the universe and the missing baryons problem for an adult audience of amateur astronomers November 2011
- Morehead Science Center Family Night
Participated in a "Make Your Own Galaxy" booth designed for kids December 2009

FIRST AUTHOR (OR MAJOR INVOLVEMENT) PUBLICATIONS

- [1] **Stark, David V.**, K. L. Masters, V. Avila-Reese, R. Riffel, R. Riffel, N. F. Boardman, Z. Zheng, A.-M. Weijmans, S. Dillon, C. Fielder, D. Finnegan, P. Fofie, J. Goddy, E. Harrington, Z. Pace, W. Rujopakarn, N. Samanso, S. Shamsi, A. Sharma, E. Warrick, C. Witherspoon, and N. Wolthuis, "H I-MaNGA: tracing the physics of the neutral and ionized ISM with the second data release", *MNRAS*, vol. 503, no. 1, pp. 1345–1366, May 2021. arXiv: 2101.12680 [[astro-ph.GA](#)].
- [2] J. Goddy, **Stark, David V.**, and K. L. Masters, "L-band Calibration of the Green Bank Telescope from 2016 2019", *Research Notes of the American Astronomical Society*, vol. 4, no. 1, 3, p. 3, Jan. 2020. arXiv: 2001.10795 [[astro-ph.IM](#)].
- [3] K. L. Masters, **Stark, David V.**, Z. J. Pace, F. Phipps, W. Rujopakarn, N. Samanso, E. Harrington, J. R. Sánchez-Gallego, V. Avila-Reese, M. Bershadly, B. Cherinka, C. E. Fielder, D. Finnegan, R. A. Riffel, K. Rowlands, S. Shamsi, L. Newnham, A.-M. Weijmans, and C. A. Witherspoon, "H I-MaNGA: H I follow-up for the MaNGA survey", *MNRAS*, vol. 488, no. 3, pp. 3396–3405, Sep. 2019. arXiv: 1901.05579 [[astro-ph.GA](#)].
- [4] **Stark, David V.**, K. A. Bundy, K. Westfall, M. Bershadly, A.-M. Weijmans, K. L. Masters, S. Kruk, J. Brinchmann, J. Soler, R. Abraham, E. Cheung, D. Bizyaev, N. Drory, A. R. Lopes, and D. R. Law, "SDSS-IV MaNGA: characterizing non-axisymmetric motions in galaxy velocity fields using the Radon transform", *MNRAS*, vol. 480, no. 2, pp. 2217–2235, Oct. 2018. arXiv: 1807.11503 [[astro-ph.GA](#)].

- [5] M. P. Haynes, R. Giovanelli, B. R. Kent, E. A. K. Adams, T. J. Balonek, D. W. Craig, D. Fertig, R. Finn, C. Giovanardi, G. Hallenbeck, K. M. Hess, G. L. Hoffman, S. Huang, M. G. Jones, R. A. Koopmann, D. A. Kornreich, L. Leisman, J. Miller, C. Moorman, J. O’Connor, A. O’Donoghue, E. Papastergis, P. Troischt, **Stark, David**, and L. Xiao, “The Arecibo Legacy Fast ALFA Survey: The ALFALFA Extragalactic H I Source Catalog”, *ApJ*, vol. 861, no. 1, 49, p. 49, Jul. 2018. arXiv: 1805.11499 [astro-ph.GA].
- [6] **Stark, David V.**, K. A. Bundy, M. E. Orr, P. F. Hopkins, K. Westfall, M. Bershad, C. Li, D. Bizyaev, K. L. Masters, A.-M. Weijmans, I. Lacerna, D. Thomas, N. Drory, R. Yan, and K. Zhang, “SDSS-IV MaNGA: constraints on the conditions for star formation in galaxy discs”, *MNRAS*, vol. 474, no. 2, pp. 2323–2333, Feb. 2018. arXiv: 1711.00178 [astro-ph.GA].
- [7] **Stark, David V.**, S. J. Kannappan, K. D. Eckert, J. Florez, K. R. Hall, L. C. Watson, E. A. Hoversten, J. N. Burchett, D. T. Guynn, A. D. Baker, A. J. Moffett, A. A. Berlind, M. A. Norris, M. P. Haynes, R. Giovanelli, A. K. Leroy, D. J. Pisano, L. H. Wei, R. E. Gonzalez, and V. F. Calderon, “The RESOLVE Survey Atomic Gas Census and Environmental Influences on Galaxy Gas Reservoirs”, *ApJ*, vol. 832, no. 2, 126, p. 126, Dec. 2016. arXiv: 1610.06932 [astro-ph.GA].
- [8] E. Cheung, **Stark, David V.**, S. Huang, K. H. R. Rubin, L. Lin, C. Tremonti, K. Zhang, R. Yan, D. Bizyaev, M. Boquien, J. R. Brownstein, N. Drory, J. D. Gelfand, J. H. Knapen, R. Maiolino, O. Malanushenko, K. L. Masters, M. R. Merrifield, Z. Pace, K. Pan, R. A. Riffel, A. Roman-Lopes, W. Rujopakarn, D. P. Schneider, J. P. Stott, D. Thomas, and A.-M. Weijmans, “SDSS-IV MaNGA: A Serendipitous Observation of a Potential Gas Accretion Event”, *ApJ*, vol. 832, no. 2, 182, p. 182, Dec. 2016. arXiv: 1609.02155 [astro-ph.GA].
- [9] **Stark, David V.**, A. D. Baker, and S. J. Kannappan, “A search for star formation in the Smith Cloud”, *MNRAS*, vol. 446, no. 2, pp. 1855–1863, Jan. 2015. arXiv: 1410.4845 [astro-ph.GA].
- [10] **Stark, David V.**, S. J. Kannappan, L. H. Wei, A. J. Baker, A. K. Leroy, K. D. Eckert, and S. N. Vogel, “The Fueling Diagram: Linking Galaxy Molecular-to-atomic Gas Ratios to Interactions and Accretion”, *ApJ*, vol. 769, no. 1, 82, p. 82, May 2013. arXiv: 1304.4245 [astro-ph.CO].
- [11] S. J. Kannappan, **Stark, David V.**, K. D. Eckert, A. J. Moffett, L. H. Wei, D. J. Pisano, A. J. Baker, S. N. Vogel, D. G. Fabricant, S. Laine, M. A. Norris, S. Jogee, N. Lepore, L. E. Hough, and J. Weinberg-Wolf, “Connecting Transitions in Galaxy Properties to Refueling”, *ApJ*, vol. 777, no. 1, 42, p. 42, Nov. 2013. arXiv: 1308.3292 [astro-ph.CO].
- [12] **Stark, David V.**, S. S. McGaugh, and R. A. Swaters, “A First Attempt to Calibrate the Baryonic Tully-Fisher Relation with Gas-Dominated Galaxies”, *AJ*, vol. 138, no. 2, pp. 392–401, Aug. 2009. arXiv: 0905.4528 [astro-ph.CO].

OTHER COAUTHORED PUBLICATIONS

- [13] N. Roy, K. Bundy, K. H. R. Rubin, K. Rowlands, K. Westfall, R. Riffel, D. Bizyaev, **Stark, David V.**, R. A. Riffel, I. Lacerna, P. Nair, X. Wu, and N. Drory, “Signatures of inflowing gas in red geyser galaxies hosting radio-AGN”, *arXiv e-prints*, arXiv:2106.14901, arXiv:2106.14901, Jun. 2021. arXiv: 2106.14901 [astro-ph.GA].
- [14] Z. J. Pace, C. Tremonti, A. L. Schaefer, **Stark, David V.**, C. A. Witherspoon, K. L. Masters, N. Drory, and K. Zhang, “SDSS-IV/MaNGA: Can Impulsive Gaseous Inflows Explain Steep Oxygen Abundance Profiles and Anomalously Low-Metallicity Regions?”, *ApJ*, vol. 908, no. 2, 165, p. 165, Feb. 2021. arXiv: 2012.12887 [astro-ph.GA].

- [15] J. Florez, A. A. Berlind, S. J. Kannappan, D. V. Stark, K. D. Eckert, V. F. Calderon, A. J. Moffett, D. Campbell, and M. Sinha, “Void Galaxies Follow a Distinct Evolutionary Path in the Environmental COntext Catalog”, *ApJ*, vol. 906, no. 2, 97, p. 97, Jan. 2021. arXiv: 2011.08276 [astro-ph.GA].
- [16] L. Lin, S. L. Ellison, H.-A. Pan, M. D. Thorp, Y.-C. Su, S. F. Sánchez, F. Belfiore, M. S. Bothwell, K. Bundy, Y.-M. Chen, A. Concas, B.-C. Hsieh, P.-Y. Hsieh, C. Li, R. Maiolino, K. Masters, J. A. Newman, K. Rowlands, Y. Shi, R. Smethurst, **Stark, David V.**, T. Xiao, and P.-C. Yu, “ALMaQUEST. IV. The ALMA-MaNGA QUEnching and STar Formation (ALMaQUEST) Survey”, *ApJ*, vol. 903, no. 2, 145, p. 145, Nov. 2020. arXiv: 2010.01751 [astro-ph.GA].
- [17] H.-A. Pan, L. Lin, B.-C. Hsieh, M. J. Michałowski, M. S. Bothwell, S. Huang, A. V. Moiseev, D. Oparin, E. O’Sullivan, D. M. Worrall, S. F. Sánchez, S. Gwyn, D. R. Law, **Stark, David V.**, D. Bizyaev, C. Li, C.-H. Lee, H. Fu, F. Belfiore, K. Bundy, J. G. Fernández-Trincado, J. Gelfand, and S. Peirani, “SDSS-IV MaNGA: The Nature of an Off-galaxy H α Blob—A Multiwavelength View of Offset Cooling in a Merging Galaxy Group”, *ApJ*, vol. 903, no. 1, 16, p. 16, Nov. 2020. arXiv: 2009.06656 [astro-ph.GA].
- [18] A. Fraser-McKelvie, M. Merrifield, A. Aragón-Salamanca, T. Peterken, K. Kraljic, K. Masters, **Stark, David V.**, F. Fragkoudi, R. Smethurst, N. Fraser Boardman, N. Drory, and R. R. Lane, “SDSS-IV MaNGA: The link between bars and the early cessation of star formation in spiral galaxies”, *MNRAS*, vol. 499, no. 1, pp. 1116–1125, Sep. 2020. arXiv: 2009.07859 [astro-ph.GA].
- [19] R. Ahumada, C. Allende Prieto, A. Almeida, *et al.*, “The 16th Data Release of the Sloan Digital Sky Surveys: First Release from the APOGEE-2 Southern Survey and Full Release of eBOSS Spectra”, *ApJS*, vol. 249, no. 1, 3, p. 3, Jul. 2020. arXiv: 1912.02905 [astro-ph.GA].
- [20] I. Palumbo Michael L., S. J. Kannappan, E. M. Frazer, K. D. Eckert, D. J. Norman, L. Fraga, B. C. Quint, P. Amram, C. Mendes de Oliveira, A. S. Bittner, A. J. Moffett, **Stark, David V.**, M. A. Norris, N. T. Cleaves, and D. S. Carr, “Linking compact dwarf starburst galaxies in the RESOLVE survey to downsized blue nuggets”, *MNRAS*, vol. 494, no. 4, pp. 4730–4750, Apr. 2020. arXiv: 2003.12891 [astro-ph.GA].
- [21] G. W. Roberts-Borsani, A. Saintonge, K. L. Masters, and **Stark, David V.**, “Outflows in star-forming galaxies: Stacking analyses of resolved winds and the relation to their hosts’ properties”, *MNRAS*, vol. 493, no. 3, pp. 3081–3097, Apr. 2020. arXiv: 2002.05724 [astro-ph.GA].
- [22] A. L. Schaefer, C. Tremonti, Z. Pace, F. Belfiore, M. Argudo-Fernandez, M. A. Bershad, N. Drory, A. Jones, R. Maiolino, **Stark, David V.**, D. Wake, and R. Yan, “SDSS-IV MaNGA: Evidence for Enriched Accretion onto Satellite Galaxies in Dense Environments”, *ApJ*, vol. 884, no. 2, 156, p. 156, Oct. 2019. arXiv: 1909.04738 [astro-ph.GA].
- [23] W. Wang, J. Han, A. Sonnenfeld, N. Yasuda, X. Li, Y. Jing, S. More, P. A. Price, R. Lupton, E. S. Rykoff, **Stark, David V.**, T.-W. Lan, M. Takada, S. Huang, W. Luo, N. A. Bahcall, and Y. Komiyama, “The stellar halo of isolated central galaxies in the Hyper Suprime-Cam imaging survey”, *MNRAS*, vol. 487, no. 2, pp. 1580–1606, Aug. 2019. arXiv: 1811.04714 [astro-ph.GA].
- [24] D. S. Aguado, R. Ahumada, A. Almeida, *et al.*, “The Fifteenth Data Release of the Sloan Digital Sky Surveys: First Release of MaNGA-derived Quantities, Data Visualization Tools, and Stellar Library”, *ApJS*, vol. 240, no. 2, 23, p. 23, Feb. 2019. arXiv: 1812.02759 [astro-ph.IM].
- [25] C. E. Hood, S. J. Kannappan, **Stark, David V.**, I. P. Dell’Antonio, A. J. Moffett, K. D. Eckert, M. A. Norris, and D. Hendel, “The Origin of Faint Tidal Features around Galaxies in the RESOLVE Survey”, *ApJ*, vol. 857, no. 2, 144, p. 144, Apr. 2018. arXiv: 1803.05447 [astro-ph.GA].
- [26] B. Abolfathi, D. S. Aguado, G. Aguilar, *et al.*, “The Fourteenth Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the Extended Baryon Oscillation Spectroscopic Survey and from

- the Second Phase of the Apache Point Observatory Galactic Evolution Experiment”, *ApJS*, vol. 235, no. 2, 42, p. 42, Apr. 2018. arXiv: 1707.09322 [astro-ph.GA].
- [27] F. D. Albareti, C. Allende Prieto, A. Almeida, *et al.*, “The 13th Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the SDSS-IV Survey Mapping Nearby Galaxies at Apache Point Observatory”, *ApJS*, vol. 233, no. 2, 25, p. 25, Dec. 2017. arXiv: 1608.02013 [astro-ph.GA].
- [28] L. Lin, F. Belfiore, H.-A. Pan, M. S. Bothwell, P.-Y. Hsieh, S. Huang, T. Xiao, S. F. Sánchez, B.-C. Hsieh, K. Masters, S. Ramya, J.-H. Lin, C.-H. Hsu, C. Li, R. Maiolino, K. Bundy, D. Bizyaev, N. Drory, H. Ibarra-Medel, I. Lacerna, T. Haines, R. Smethurst, **Stark, David V.**, and D. Thomas, “SDSS-IV MaNGA-resolved Star Formation and Molecular Gas Properties of Green Valley Galaxies: A First Look with ALMA and MaNGA”, *ApJ*, vol. 851, no. 1, 18, p. 18, Dec. 2017. arXiv: 1710.08610 [astro-ph.GA].
- [29] K. D. Eckert, S. J. Kannappan, C. d. P. Lagos, A. D. Baker, A. A. Berlind, **Stark, David V.**, A. J. Moffett, Z. Nasipak, and M. A. Norris, “The Baryonic Collapse Efficiency of Galaxy Groups in the RESOLVE and ECO Surveys”, *ApJ*, vol. 849, no. 1, 20, p. 20, Nov. 2017. arXiv: 1709.07462 [astro-ph.GA].
- [30] M. R. Blanton, M. A. Bershady, B. Abolfathi, *et al.*, “Sloan Digital Sky Survey IV: Mapping the Milky Way, Nearby Galaxies, and the Distant Universe”, *AJ*, vol. 154, no. 1, 28, p. 28, Jul. 2017. arXiv: 1703.00052 [astro-ph.GA].
- [31] L. Lin, J.-H. Lin, C.-H. Hsu, H. Fu, S. Huang, S. F. Sánchez, S. Gwyn, J. D. Gelfand, E. Cheung, K. Masters, S. Peirani, W. Rujopakarn, **Stark, David V.**, F. Belfiore, M. S. Bothwell, K. Bundy, A. Hagen, L. Hao, S. Huang, D. Law, C. Li, C. Lintott, R. Maiolino, A. Roman-Lopes, W.-H. Wang, T. Xiao, F. Yuan, D. Bizyaev, E. Malanushenko, N. Drory, J. G. Fernández-Trincado, Z. Pace, K. Pan, and D. Thomas, “SDSS IV MaNGA: Discovery of an H α Blob Associated with a Dry Galaxy Pair—Ejected Gas or a “Dark” Galaxy Candidate?”, *ApJ*, vol. 837, no. 1, 32, p. 32, Mar. 2017. arXiv: 1702.02464 [astro-ph.GA].
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