

# Steven R. Furlanetto

## Business Address:

UCLA Physics and Astronomy  
Box 951547, 3-720 PAB  
Los Angeles, CA 90095-1547

## Current Employment

2013– Professor of Physics and Astronomy, University of California - Los Angeles

## Past Employment

2009–13 Associate Professor of Physics and Astronomy, University of California - Los Angeles

2008–9 Assistant Professor of Physics and Astronomy, University of California - Los Angeles

2006–7 Assistant Professor of Physics, Yale University

2003–5 Lee A. DuBridge Prize Fellow in Theoretical Physics and Astrophysics, California Institute of Technology (Advisor: Marc Kamionkowski)

## Education

Harvard University, Cambridge, MA

Ph. D., Astronomy, 2003 (Advisor: Abraham Loeb)

A. M., Astronomy, 2001

University of Cambridge, UK

Certificate of Advanced Study in Mathematics, 1999

Passed with Distinction

Carleton College, Northfield, MN

B. A., Physics, 1998

Summa Cum Laude with Distinction in Physics

## Honors and Awards

2015 Simons Fellowship in Theoretical Physics

2011 Helen B. Warner Prize, American Astronomical Society

2010 Alfred P. Sloan Fellowship

2008 David & Lucile Packard Fellowship in Science and Engineering

2008 Bok Prize, Harvard University Department of Astronomy

2006 Robert J. Trumpler Award, Astronomical Society of the Pacific

2003 Edward Fireman Award, Harvard University

2002–2003 John Parker Scholarship (Harvard University Merit Fellowship)

1999–2002 NSF Graduate Research Fellowship

1999 Loomis Award, Harvard University Department of Astronomy

1999 Tyson Medal, University of Cambridge

1998–1999 Winston S. Churchill Fellowship

1997–1998 Barry M. Goldwater Scholarship

### Teaching Awards

- 2019 UCLA Departmental Outstanding Teaching Award (Astro 274 - Winter 2019; Astro 271A Fall 2019)
- 2018 UCLA Departmental Outstanding Teaching Award (Astro 140 - Spring 2018)
- 2017 UCLA Departmental Outstanding Teacher of the Year Award
- 2017 UCLA Departmental Outstanding Teaching Award (Astro 271A, 274, 275 - Fall/Winter/Spring 2016-7)
- 2015 UCLA Departmental Outstanding Teaching Award (Astro 140 - Spring 2015)
- 2014 UCLA Departmental Outstanding Teaching Award (Astro 140 - Spring 2014)
- 2012 UCLA Departmental Outstanding Teaching Award (Astro 140 - Spring 2012)
- 2011 UCLA Departmental Outstanding Teaching Award (Astro 140 - Spring 2011)
- 2010 UCLA Departmental Outstanding Teaching Award (Astro 140 - Spring 2010)
- 2008 UCLA Departmental Outstanding Teaching Award (Astro 3 - Spring 2008)

### Professional Activities

Theory Lead, *Hydrogen Epoch of Reionization Array* (PI: A. Parsons, 2013-)

Member, Network for Exploration and Space Science, part of NASA Solar System Exploration Research Virtual Institute (SSERVI), (PI: J. Burns, 2017-)

Member, Extragalactic Potential Observations (EXPO) Science Investigation Team, Nancy Grace Roman Space Telescope (PI: B. Robertson, 2016-21)

Principal Investigator, *UC Cosmic Dawn Initiative* (2015-16) (UC Multicampus Research Program)

Editorial Board Member for *Journal of Cosmology and Astroparticle Physics* (2012-)

Referee for *The Astrophysical Journal*, *The Astrophysical Journal Letters* (2011), *Monthly Notices of the Royal Astronomical Society* (2011), *Astronomy & Astrophysics*, *Journal of Cosmology and Astroparticle Physics* (2011), *Nature*, *Physical Review D*, and *Physical Review Letters*

Member, American Astronomical Society

### Service

University of California Observatories, Keck Distant Universe Time Allocation Committee (2019-)

University of California Observatories Strategic Planning Committee (2013)

University of California Astronomy Task Force (2011)

Graduate Admissions Committee, UCLA Department of Physics and Astronomy (member, 2010; co-chair, 2011, 2012; chair, 2013, 2014, 2015)

Astronomy Graduate Curriculum Committee, UCLA Department of Physics and Astronomy (member, Winter-Spring 2010, chair, Fall 2010)

**Past Advisees**

*Thesis Advisees:* Keri Dixon (graduated 2012), Lauren Holzbauer (graduated 2014), Frederick Davies (graduated 2015), Richard Mebane (graduated 2020), Adam Trapp (current)

*Postdoctoral Researcher Advisees:* Andrei Mesinger (2006-8), Joseph Munoz (2009-12), Jordan Mirocha (2015-18)

## Refereed Publications

(156 total refereed publications;  $h$ -index 59; over 15,000 total citations)

Hegde, S., Wyatt, M. M., & **Furlanetto, S. R.**, “A hidden population of active galactic nuclei can explain the overabundance of luminous  $z > 10$  objects observed by JWST,” submitted to *Journal of Cosmology and Astroparticle Physics* (arXiv.org/2405.01629)

Muñoz, J. B., Mirocha, J., Chisholm, J., **Furlanetto, S. R.**, & Mason, C., “Reionization after JWST: a photon budget crisis?” submitted (arXiv.org/2404.07250)

Garsden, H. et al. “A demonstration of the effect of fringe-rate filtering in the Hydrogen Epoch of Reionization Array delay power spectrum pipeline,” submitted (arXiv.org/2402.08659) [97 total authors; **Furlanetto, S. R.** listed thirty-third]

Zhao, J. & **Furlanetto, S. R.**, “Dust in High-Redshift Galaxies: Reconciling UV Attenuation and IR Emission,” submitted to *Journal of Cosmology and Astroparticle Physics* (arXiv.org/2401.07893)

Liu, L.-J., Sun, G., Chang, T.-C., **Furlanetto, S. R.**, & Bradford, C. M., “Effects of Bursty Star Formation on [C II] Line Intensity Mapping of High-redshift Galaxies,” submitted (arXiv.org/2401.04240)

Kittiwisit, P. et al. “matvis: A matrix-based visibility simulator for fast forward modelling of many-element 21 cm arrays,” submitted (arXiv.org/2312.09763) [98 total authors; **Furlanetto, S. R.** listed thirty-eighth]

Murphy, G. G. et al. “Bayesian estimation of cross-coupling and reflection systematics in 21cm array visibility data,” submitted (arXiv.org/2312.0369) [79 total authors; **Furlanetto, S. R.** listed thirtieth]

Xu, Z. et al. “Direct Optimal Mapping Image Power Spectrum and its Window Functions,” submitted (arXiv.org/2311.10711) [83 total authors; **Furlanetto, S. R.** listed fortieth]

Berkhout, L. M. et al. “Hydrogen Epoch of Reionization Array (HERA) Phase II Deployment and Commissioning,” *Publications of the Astronomical Society of the Pacific*, 2024, 136, id. 045002 [83 total authors; **Furlanetto, S. R.** listed thirty-third]

Muñoz, J. B., Mirocha, J., **Furlanetto, S. R.**, “Breaking degeneracies in the first galaxies with clustering,” *Monthly Notices of the Royal Astronomical Society*, 2023, 526, L47

Hegde, S. & **Furlanetto, S. R.**, “A self-consistent semi-analytic model for Population III star formation in minihaloes,” *Monthly Notices of the Royal Astronomical Society*, 2023, 525, 4428

Trapp, A. C., **Furlanetto, S. R.**, & Davies, F. B. “Lyman- $\alpha$  emitters in ionized bubbles: constraining the environment and ionized fraction,” *Monthly Notices of the Royal Astronomical Society*, 2023, 524, 5891

Christenson, H. M., Becker, G. D., D’Aloisio, A., Davies, F. B., Zhu, Y., Boera, E., Nasir, F., **Furlanetto, S. R.**, & Malkan, M. “The Relationship between IGM Ly $\alpha$  Opacity and Galaxy Density near the End of Reionization,” *The Astrophysical Journal*, 2023, 955, 138

Keller, P. et al. “Search for the Epoch of Reionization with HERA: upper limits on the closure phase delay power spectrum,” *Monthly Notices of the Royal Astronomical Society*, 2023, 524, 583 [83 total authors; **Furlanetto, S. R.** listed thirty-seventh]

- Furlanetto, S. R.** & Mirocha, J. “On the expected purity of photometric galaxy surveys targeting the Cosmic Dawn,” *Monthly Notices of the Royal Astronomical Society*, 2023, 523, 5274
- Trapp, A. C. & **Furlanetto, S. R.** “A joint measurement of the galaxy luminosity functions and large-scale field densities during the Epoch of Reionization,” *Monthly Notices of the Royal Astronomical Society*, 2023, 523, 4556
- Sun, G., Mas-Ribas, L., Chang, T.-C., **Furlanetto, S. R.**, et al. “LIMFAST. II. Line Intensity Mapping as a Probe of High-Redshift Galaxy Formation,” *The Astrophysical Journal*, 2023, 950, 40
- Pagano, M. et al. “Characterization of inpaint residuals in interferometric measurements of the epoch of reionization,” *Monthly Notices of the Royal Astronomical Society*, 2023, 520, 5552 [77 total authors; **Furlanetto, S. R.** listed thirty-third]
- Yamaguchi, N., **Furlanetto, S. R.**, & Trapp, A. C. “The extent of metal enrichment from galactic winds during the Cosmic Dawn,” *Monthly Notices of the Royal Astronomical Society*, 2023, 520, 2922
- Gorce, A. et al. “Impact of instrument and data characteristics in the interferometric reconstruction of the 21 cm power spectrum,” *Monthly Notices of the Royal Astronomical Society*, 2023, 520, 375 [77 total authors; **Furlanetto, S. R.** listed thirty-first]
- HERA Collaboration et al. “Improved Constraints on the 21 cm EoR Power Spectrum and the X-Ray Heating of the IGM with HERA Phase I Observations,” *The Astrophysical Journal*, 2023, 945, id. 124 [95 total authors; **Furlanetto, S. R.** listed thirty-first]
- Mirocha, J. & **Furlanetto, S. R.** “Balancing the efficiency and stochasticity of star formation with dust extinction in  $z > 10$  galaxies observed by JWST,” *Monthly Notices of the Royal Astronomical Society*, 2023, 519, 843
- Wilensky, M. J. et al. “Bayesian jackknife tests with a small number of subsets: application to HERA 21 cm power spectrum upper limits,” *Monthly Notices of the Royal Astronomical Society*, 2023, 518, 6041 [77 total authors; **Furlanetto, S. R.** listed twenty-ninth]
- Xu, Z. et al. “Direct Optimal Mapping for 21 cm Cosmology: A Demonstration with the Hydrogen Epoch of Reionization Array,” *The Astrophysical Journal*, 2022, 938, id. 128 [82 total authors; **Furlanetto, S. R.** listed thirty-fifth]
- Mirocha, J., Munoz, J. B., **Furlanetto, S. R.**, Liu, A., & Mesinger, A. “A galaxy-free phenomenological model for the 21-cm power spectrum during reionization,” *Monthly Notices of the Royal Astronomical Society*, 2022, 514, 2010
- Davies, F. A. B. & **Furlanetto, S. R.** “Improved treatments of the ionizing photon mean free path in semi-numerical simulations of reionization,” *Monthly Notices of the Royal Astronomical Society*, 2022, 514, 1302
- Furlanetto, S. R.** & Mirocha, J. “Bursty star formation during the Cosmic Dawn driven by delayed stellar feedback,” *Monthly Notices of the Royal Astronomical Society*, 2022, 511, 3895
- Trapp, A. C., **Furlanetto, S. R.**, & Yang, J. “A framework for simultaneously measuring field densities and the high- $z$  luminosity function,” *Monthly Notices of the Royal Astronomical Society*, 2022, 510, 4844

- Drakos, N.E. et al. “Deep Realistic Extragalactic Model (DREaM) Galaxy Catalogs: Predictions for a Roman Ultra-deep Field,” *The Astrophysical Journal*, 926, id. 194
- HERA Collaboration, “First Results from HERA Phase I: Upper Limits on the Epoch of Reionization 21 cm Power Spectrum,” *The Astrophysical Journal*, 925, id. 221 [76 total authors; **Furlanetto, S. R.** listed twenty-fifth]
- Storer, D. et al. “Automated Detection of Antenna Malfunctions in Large-N Interferometers: A Case Study with the Hydrogen Epoch of Reionization Array,” *Radio Science*, 2022, 57, id. e07376 [78 total authors; **Furlanetto, S. R.** listed twenty-ninth]
- Aguirre, T.A. et al. “Validation of the HERA Phase I Epoch of Reionization 21 cm Power Spectrum Software Pipeline,” *The Astrophysical Journal*, 2022, 924, id. 85 [76 total authors; **Furlanetto, S. R.** listed thirty-fourth]
- HERA Collaboration et al. “HERA Phase I Limits on the Cosmic 21-cm Signal: Constraints on Astrophysics and Cosmology During the Epoch of Reionization,” *The Astrophysical Journal*, 2022, 924, id. 51 [**Furlanetto, S. R.** was supervising author]
- Sun, G., Mirocha, J., Mebane, R. H., & **Furlanetto, S. R.** “Revealing the formation histories of the first stars with the cosmic near-infrared background,” *Monthly Notices of the Royal Astronomical Society*, 2021, 508, 1954
- Christenson, H. M., Becker, G. D., **Furlanetto, S. R.**, Davies, F. B., Malkan, M. A., Zhu, Y., Boera, E., & Trapp, A. “Constraints on the End of Reionization from the Density Fields Surrounding Two Highly Opaque Quasar Sightlines,” **The Astrophysical Journal**, 2021, 923, id. 87
- Gehlot, B. K. et al. “Effects of model incompleteness on the drift-scan calibration of radio telescopes,” *Monthly Notices of the Royal Astronomical Society*, 2021, 506, 4578 [79 total authors; **Furlanetto, S. R.** listed twenty-ninth]
- Davies, F. B., Bosman, S. E. I., **Furlanetto, S. R.**, Becker, G. D., & D’Aloisio, A. “The Predicament of Absorption-dominated Reionization: Increased Demands on Ionizing Sources,” *The Astrophysical Journal Letters*, 2021, 918, 35
- Tan, J. et al. “Methods of Error Estimation for Delay Power Spectra in 21 cm Cosmology,” *The Astrophysical Journal Supplement*, 2021, 255, 26 [74 total authors; **Furlanetto, S. R.** listed twenty-seventh]
- Topping, M. W., Shapley, A. E., Stark, D. P., Endlsey, R., Robertson, B., Greene, J. E., **Furlanetto, S. R.**, & Tang, M. “The Detection of Ionized Carbon Emission at  $z \sim 8$ ,” *The Astrophysical Journal Letters*, 2021, 917, L36
- La Plante, P. et al. “A Real Time Processing system for big data in astronomy: Applications to HERA,” *Astronomy and Computing*, 2021, 36, 100489 [75 total authors; **Furlanetto, S. R.** listed twenty-ninth]
- Furlanetto, S. R.** “Quasi-equilibrium models of high-redshift disc galaxy evolution,” *Monthly Notices of the Royal Astronomical Society*, 2020, 500, 3394
- Dillon, J. S. et al. “Redundant-Baseline Calibration of the Hydrogen Epoch of Reionization Array,” *Monthly Notices of the Royal Astronomical Society*, 2020, 499, 5840 [75 total authors; **Furlanetto, S. R.** listed thirtieth]

- Trapp, A. C. & **Furlanetto, S. R.** “A Flexible Analytic Model of Cosmic Variance in the First Billion Years,” *Monthly Notices of the Royal Astronomical Society*, 2020, 499, 2401
- Thyagarajan, N., et al. “Detection of cosmic structures using the bispectrum phase. II. First results from application to cosmic reionization using the Hydrogen Epoch of Reionization Array,” *Physical Review D*, 102, id.022002 [72 total authors; **Furlanetto, S. R.** listed twenty-ninth]
- Nunhokee, C. D., et al. “Measuring HERA’s Primary Beam in Situ: Methodology and First Results,” *The Astrophysical Journal*, 2020, 897, id. 5 [67 total authors; **Furlanetto, S. R.** listed twenty-seventh]
- Ghosh, A., et al. “Foreground modelling via Gaussian process regression: an application to HERA data,” *Monthly Notices of the Royal Astronomical Society*, 2020, 495, 2813 [73 total authors; **Furlanetto, S. R.** listed thirty-fifth]
- Carilli, C. L., et al. “Imaging and Modeling Data from the Hydrogen Epoch of Reionization Array,” *The Astrophysical Journal Supplement Series*, 2020, 247, id. 67 [72 total authors; **Furlanetto, S. R.** listed twenty-ninth]
- Mebane, R. H., Mirocha, J., & **Furlanetto, S. R.** “The effects of population III radiation backgrounds on the cosmological 21-cm signal,” *Monthly Notices of the Royal Astronomical Society*, 2020, 493, 1217
- Kern, N. S., et al. “Absolute Calibration Strategies for the Hydrogen Epoch of Reionization Array and Their Impact on the 21 cm Power Spectrum,” *The Astrophysical Journal*, 2020, 890, id. 122 [72 total authors; **Furlanetto, S. R.** listed twenty-sixth]
- Kern, N. S., et al. “Mitigating Internal Instrument Coupling for 21 cm Cosmology. II. A Method Demonstration with the Hydrogen Epoch of Reionization Array,” *The Astrophysical Journal*, 2020, 888, id. 70 [67 total authors; **Furlanetto, S. R.** listed twenty-fifth]
- Kerrigan, J., et al. “Optimizing sparse RFI prediction using deep learning,” *Monthly Notices of the Royal Astronomical Society*, 2019, 488, 2605 [64 total authors; **Furlanetto, S. R.** listed twenty-fifth]
- Mirocha, J., & **Furlanetto, S. R.** “What does the first highly-redshifted 21-cm detection tell us about early galaxies?” *Monthly Notices of the Royal Astronomical Society*, 2019, 483, 1980
- Kohn, S. et al., “The HERA-19 Commissioning Array: Direction-dependent Effects,” *The Astrophysical Journal*, 2019, 882, 58 [67 total authors; **Furlanetto, S. R.** listed thirtieth]
- Becker, G. D., Davies, F. B., **Furlanetto, S. R.**, Malkan, M. A., Boera, E. & Douglass, C. “Evidence of Large-Scale Fluctuations in the Metagalactic Ionizing Background Near Redshift Six,” *The Astrophysical Journal*, 2018, 863, id. 92
- Mebane, R. H., Mirocha, J., & **Furlanetto, S. R.** “The persistence of Population III star formation,” *Monthly Notices of the Royal Astronomical Society*, 2018, 479, 4544
- Mirocha, J., Mebane, R. H., **Furlanetto, S. R.** Singal, K., & Trinh, D. “Unique signatures of Population III stars in the global 21-cm signal,” *Monthly Notices of the Royal Astronomical Society*, 2018, 478, 5591

- Patra, N., Parsons, A. R., et al. “The hydrogen epoch of reionization array dish III: measuring chromaticity of prototype element with reflectometry,” *Experimental Astronomy*, 2018, 45, 177
- Davies, F. B., Becker, G. D., & **Furlanetto, S. R.** “Determining the Nature of Late Gunn-Peterson Troughs with Galaxy Surveys,” *The Astrophysical Journal*, 2018, 860, id. 155
- Patra, N., Parsons, A. R. et al. “The hydrogen epoch of reionization array dish III: measuring chromaticity of prototype element with reflectometer,” *Experimental Astronomy*, 2018, 45, 177 [48 total authors; **Furlanetto, S. R.** listed twenty-second]
- D’Aloisio, A., McQuinn, M., Davies, F. B. & **Furlanetto, S. R.** “Large fluctuations in the high-redshift metagalactic ionizing background,” *Monthly Notices of the Royal Astronomical Society*, 2018, 473, 560
- Furlanetto, S. R.**, Mirocha, J., Mebane, R. H., & Sun, G., “A minimalist feedback-regulated model for galaxy formation during the epoch of reionization,” *Monthly Notices of the Royal Astronomical Society*, 2017, 472, 1576
- Burns, J. O., Bradley, R., Taucher, K., **Furlanetto, S. R.**, Mirocha, J., Monsalve, R., Rapetti, D., Purcell, W., Newell, D., Draper, D., MacDowall, R., Bowman, J., Nhan, B., Wollack, E. J., Fialkov, A., Jones, D., Kasper, J. C., Loeb, A., Dutta, A., Pritchard, J., Switzer, E., & Bica, M., “A Space-based Observational Strategy for Characterizing the First Stars and Galaxies Using the Redshifted 21 cm Global Spectrum,” *The Astrophysical Journal*, 2017, 844, id. 33
- DeBoer, D. R. et al. “The Hydrogen Epoch of Reionization Array (HERA),” 2016, *Publications of the Astronomical Society of the Pacific*, 2017, 129, id. 045001 [54 total authors; **Furlanetto, S. R.** listed eighteenth]
- Davies, F. B. **Furlanetto, S. R.**, & Dixon, K. L. “A Self-Consistent 3D Model of Fluctuations in the Helium-Ionizing Background,” 2017, *Monthly Notices of the Royal Astronomical Society*, 2017, 465, 2886
- Mirocha, J., **Furlanetto, S. R.**, & Sun, G. “The Global 21-cm Signal in the Context of the High-z Galaxy Luminosity Function,” 2017, *Monthly Notices of the Royal Astronomical Society*, 2017, 464, 1365
- Lin, Y., Oh, S. P., **Furlanetto, S. R.**, & Sutter, P. M. “The Distribution of Bubble Sizes During Reionization,” 2016, *Monthly Notices of the Royal Astronomical Society*, 461, 3361
- Davies, F. B. & **Furlanetto, S. R.** “Large fluctuations in the hydrogen-ionizing background and mean free path following the epoch of reionization,” 2016, *Monthly Notices of the Royal Astronomical Society*, 460, 1328
- Sun, G. & **Furlanetto, S. R.** “Constraints on the star formation efficiency of galaxies during the epoch of reionization,” 2016, *Monthly Notices of the Royal Astronomical Society*, 460, 417
- Davies, F. B., **Furlanetto, S. R.**, & McQuinn, M. “Quasar Ionization Front Ly $\alpha$  Emission in an Inhomogeneous Intergalactic Medium,” 2016, *Monthly Notices of the Royal Astronomical Society*, 457, 3006

- Furlanetto, S. R.** & Oh, S. P. “Reionization through the lens of percolation theory,” 2016, *Monthly Notices of the Royal Astronomical Society*, 457, 1813
- Muñoz, J. A., Oh, S. P., Davies, F. B., & **Furlanetto, S. R.** “The Flatness and Sudden Evolution of the Intergalactic Ionizing Background,” 2016, *Monthly Notices of the Royal Astronomical Society*, 455, 1385
- Pober, J. C., Ali, Z. S., Parsons, A. R., McQuinn, M., Aguirre, J. E., Bernardi, G., Bradley, R. F., Carilli, C. L., Cheng, C., DeBoer, D. R., Dexter, M. R., **Furlanetto, S. R.**, Grobbelaar, J., Horrell, J., Jacobs, D.C., Klima, P. J., Kohn, S. A., Liu, A., MacMahon, D. H. E., Maree, M., Mesinger, A., Moore, D. F., Razavi-Ghods, N., Stefan, I.I., Walbrugh, W. P., Walker, A., & Zheng, H., “PAPER-64 Constraints on Reionization. II. The Temperature of the  $z=8.4$  Intergalactic Medium,” 2015, *The Astrophysical Journal*, 809, id. 62
- Robertson, B. E., Ellis, R. S., **Furlanetto, S. R.**, & Dunlop J. S., “Cosmic Reionization and Early Star-forming Galaxies: A Joint Analysis of New Constraints from Planck and the Hubble Space Telescope,” 2015, *The Astrophysical Journal Letters*, 802, id. 19
- Glover, S. C. O., Chluba, J., **Furlanetto, S. R.**, Pritchard, J. R., & Savin, D. W. “Atomic, Molecular, and Optical Physics in the Early Universe: From Recombination to Reionization,” 2014, *Advances in Atomic, Molecular, and Optical Physics*, 63, 135
- Dixon, K. L., **Furlanetto, S. R.**, & Mesinger, A. “Semi-numeric simulations of helium reionization and the fluctuating radiation background,” 2014, *Monthly Notices of the Royal Astronomical Society*, 440, 987
- Muñoz, J. A. & **Furlanetto, S. R.** “Extreme galaxies during reionization: Testing ISM and disk models,” 2014, *Monthly Notices of the Royal Astronomical Society*, 438, 2483
- Davies, F. B. & **Furlanetto, S. R.** “The Effect of Fluctuations on the Helium-Ionizing Background,” 2013, *Monthly Notices of the Royal Astronomical Society*, 437, 1141
- Muñoz, J. A. & **Furlanetto, S. R.** “Molecular cloud properties and CO line emission in  $z > 6$  galaxies,” 2013, *Monthly Notices of the Royal Astronomical Society*, 435, 2676
- Koekemoer, A., Ellis, R. S., McLure, R. J., Dunlop, J. S., Robertson, B. E., Ono, Y., Schenker, M. A., Ouchi, M., Bowler, R. A. A., Rogers, A. B., Curtis-Lake, E., Schneider, E., Charlot, S., Stark, D. P., **Furlanetto, S. R.**, Cirasuolo, M., Wild, V., & Targett, T. “The 2012 Hubble Ultra Deep Field (UDF12): Observational Overview,” 2013, *The Astrophysical Journal Supplement*, 209, 3
- Ono, Y., Ouchi, M., Curtis-Lake, E., Schenker, M. A., Ellis, R. S., McLure, R. J., Dunlop, J. S., Robertson, B. E., Koekemoer, A., Bowler, R. A. A., Rogers, A. B., Schneider, E., Charlot, S., Stark, D. P., Shimasaku, K., **Furlanetto, S. R.**, & Cirasuolo, M. “Evolution of the Sizes of Galaxies over  $7 < z < 12$  Revealed by the 2012 Hubble Ultra Deep Field Campaign,” 2013, *The Astrophysical Journal*, 777, 155

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- McLure, R. J., Dunlop, J. S., Bowler, R. A. A., Curtis-Lake, E., Schenker, M. A., Ellis, R. S., Robertson, B. E., Koekemoer, A., Rogers, A. B., Ono, Y., Ouchi, M., Charlot, S., Wild, V., Stark, D. P., **Furlanetto, S. R.**, Cirasuolo, M., & Targett, T. A. “A new multifield determination of the galaxy luminosity function at  $z = 7-9$  incorporating the 2012 Hubble Ultra-Deep Field imaging,” 2013, *Monthly Notices of the Royal Astronomical Society*, 432, 2696
- Schenker, M. A., Robertson, B. E., Ellis, R. S., Ono, Y., McLure, R. J., Dunlop, J. S., Koekemoer, A., Bowler, R. A. A., Ouchi, M., Curtis-Lake, E., Rogers, A. B., Schneider, E., Charlot, S., Stark, D. P., **Furlanetto, S. R.**, & Cirasuolo, M. “The UV Luminosity Function of Star-forming Galaxies via Dropout Selection at Redshifts  $z \sim 7$  and 8 from the 2012 Ultra Deep Field Campaign,” 2013, *The Astrophysical Journal*, 768, 196
- Robertson, B. E., **Furlanetto, S. R.**, Schneider, E., Charlot, S., Ellis, R. S., Stark, D. P., McLure, R. J., Dunlop, J. S., Koekemoer, A., Schenker, M. A., Ouchi, M., Ono, Y., Curtis-Lake, E., Rogers, A. B., Bowler, R. A. A., & Cirasuolo, M. “New Constraints on Cosmic Reionization from the 2012 Hubble Ultra Deep Field Campaign,” 2013, *The Astrophysical Journal*, 768, 71
- Loeb, A. & **Furlanetto, S. R.**, *The First Galaxies in the Universe*, 2013, Princeton University Press: Princeton, NJ
- Ellis, R. S., McLure, R. J., Dunlop, J. S., Robertson, B. E., Ono, Y., Schenker, M. A., Koekemoer, A., Bowler, R. A. A., Ouchi, M., Rogers, A. B., Curtis-Lake, E., Schneider, E., Charlot, S., Stark, D. P., **Furlanetto, S. R.**, & Cirasuolo, M. “The Abundance of Star-forming Galaxies in the Redshift Range 8.5–12: New Results from the 2012 Hubble Ultra Deep Field Campaign,” 2013, *The Astrophysical Journal Letters*, 763, L7
- Muñoz, J. A. & **Furlanetto, S. R.** “Faint AGN in  $z > 6$  Lyman-break Galaxies Powered by Cold Accretion and Rapid Angular Momentum Transport,” 2012, *Monthly Notices of the Royal Astronomical Society*, 426, 3477
- Burns, J. O., Lazio, T. J. W., Bale, S. D., Bowman, J. D., Bradley, R. F., Carilli, C. L., **Furlanetto, S. R.**, Harker, G. J. A., Loeb, A., & Pritchard, J. R., “Probing the First Stars and Black Holes in the Early Universe with the Dark Ages Radio Explorer,” 2012, *Advances in Space Research*, 49, 433
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