

CURRICULUM VITAE

Adam Lidz

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University of Pennsylvania
Department of Physics & Astronomy
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EDUCATION

Columbia University

Ph.D. in Physics, July 2004

M.A. in Physics, 2004

The University of Chicago

B.A. in Physics with Honors, 1996

RESEARCH AND EMPLOYMENT

July 2015-present: **Associate Professor**, The University of Pennsylvania, Department of Physics & Astronomy

July 2009 - July 2015: **Assistant Professor**, The University of Pennsylvania, Department of Physics & Astronomy

Sept. 2004 - July 2009: **Postdoctoral Fellow**, Harvard-Smithsonian Center for Astrophysics

PROFESSIONAL SERVICES

Referee for Astronomy & Astrophysics, Astronomical Journal, Astrophysical Journal, Journal of Cosmology and Astroparticle Physics, Monthly Notes of the Royal Astronomical Society, Nature, Physics Letters B, Physical Review D, Physical Review Letters, Publications of the Astronomical Society of Australia, Reviews of Modern Physics : (2004 - present)

NASA grant reviewer (2010, 2017, 2019, panel chair twice)

NASA Postdoctoral Program grant reviewer

NSF grant reviewer (2012, 2013)

DARE NASA SMEX Mission Concept Review Panel (2014)

Partnership for Advanced Computing in Europe grant reviewer

Subaru Telescope Open Use grant reviewer

Cottrell Scholar proposal grant reviewer

European Research Council grant reviewer

Israel Science Foundation grant reviewer

Scientific Organizing Committee for Intensity Mapping at Johns Hopkins Workshop (June 2017)

Scientific Organizing Committee for Cosmic Signals Aspen meeting (February 2018)
Scientific Organizing Committee for Reionization on a Blackboard workshop (September 2022)

UNIVERSITY SERVICE

Organizer of Astrophysics & Cosmology Seminar Series: (2011-2022)
Graduate Admissions Committee: (2011-2012, 2017-2020)
Pre-Major Advisor to seven undergraduate students in Class of 2015
Served on twenty-one PhD dissertation committees: (2009-present)

STUDENTS ADVISED

Graduate: Dr. Matthew Malloy (PhD 2015), Dr. Jessie Taylor (PhD 2016), Mr. Jackson Sipple (current), Mr. Aritra Kundu (current)
Undergraduate: Mr. Fangzhou Zhu (PhD 2017, Yale, physics), Mr. Samuel Passaglia (PhD 2020, University of Chicago, astronomy), Mr. Arazi Pinhas (PhD 2019, Cambridge University, astronomy), Mr. Koby Frank, Mr. Angus Beane (now a graduate student, Harvard, astronomy), Mr. Skyler Palatnik (now a graduate student, UCSB, physics), Ms. Dana Jones (now a graduate student, ANU, physics), Mr. Richard Chen, Mr. Alec Duquette (now a graduate student, Cornell, physics), Mr. Judah Luberto (now a graduate student, UCLA, physics), Ms. Tanisha Jhaveri (current)

TEACHING

Topics in Cosmology (Graduate level, Fall 2009, 2011, 2012, 2021)
Survey of the Universe (Spring 2009, Spring 2010, Fall 2015, Spring 2022)
Introduction to Astrophysics I (Fall 2010)
Order of Magnitude Physics (Spring 2012, Fall 2014, Fall 2017)
The Big Bang and Beyond (Spring 2013, Spring 2014, Spring 2016, Fall 2016, Fall 2019)
Introduction to Cosmology (Graduate level, Spring 2015)
The Solar System, Exoplanets, and Life (Spring 2017)
Introduction to Astrophysics II (Spring 2018, Spring 2019, Spring 2020)
Radiative Processes in Astrophysics (Graduate level, Fall 2018, Fall 2020)
The Life and Deaths of Stars (Spring 2021)

SELECTED TALKS

UC Riverside, Physics & Astronomy Colloquium: May, 2023
Cosmic Reionization: When, How, and Who

University of Washington, Dark Universe Science Center Seminar: May, 2023
Cosmic Reionization: When, How, and Who

Present and Future of Line-Intensity Mapping meeting, Garching: April, 2023
How Can Line-Intensity Mapping Help in Studying Reionization?

JPL Project Scientists' Lunch: December, 2022
Research Overview

JPL Astrophysics Colloquium: October, 2022
Cosmic Reionization: When, How, and Who

SZ Workshop, Flatiron Institute: June, 2022
How to Extract the Reionization-Era Kinetic Sunyaev-Zel'dovich Effect

SUBLIME Workshop, IPMU Tokyo (virtual): October, 2021
Why Line-Intensity Mapping, Some Recent Efforts and Open Questions

American Astronomical Society 238th meeting (virtual): June, 2021
Future Constraints on the Reionization History from GRB Afterglows

Gamow Explorer team meeting (virtual): March, 2020
Forecasting constraints on the reionization history with Gamow (updates II)

Johns Hopkins University cosmology journal club (virtual): February, 2021
Fuzzy Dark Matter and the 21 cm Power Spectrum

Gamow Explorer team meeting (virtual): January, 2021
Forecasting constraints on the reionization history with Gamow (updates I)

Ben-Gurion University Astro Seminar (virtual): December, 2020
Line Intensity Mapping and Modeling [OIII] emission at $z \geq 6$

Gamow Explorer team meeting (virtual): October, 2020
Forecasting constraints on the reionization history with Gamow

Columbia University Astronomy Colloquium: December, 2019
Line-Intensity Mapping: Why and How

McGill Global 21 cm Workshop: October, 2019
Summary Talk

McGill Global 21 cm Workshop: October, 2019
The 21 cm Signal and Fuzzy Dark Matter

Marseille Lines in the Large Scale Structure Meeting: July, 2019
Line-Intensity Mapping: Why and How

Nordita Zoom-In and Out Workshop: June, 2019

Line-Intensity Mapping: Why and How

CCAP Seminar, Ohio State University: April, 2019

The Epoch of Reionization and Line-Intensity Mapping

Simons CCA, Cosmology and Astrophysics with Intensity Mapping: February, 2019

Why EoR Line-Intensity Mapping and Some Open Questions

CITA Astrophysics Seminar: December, 2018

Cosmic Reionization from the Lyman-alpha Forest, 21 cm, and Line-Intensity Mapping

Johns Hopkins Cosmology Seminar: November, 2018

Cosmic Reionization from the Lyman-alpha Forest, 21 cm, and Line-Intensity Mapping

Princeton University, Cosmology with CMB-S4 meeting: September, 2018

Reionization Studies in the CMB-S4 Era

Jet Propulsion Laboratory Astrophysics Colloquium: March, 2018

How to Improve our Understanding of Cosmic Reionization

Aspen, Signals from Cosmic Dawn meeting: February, 2018

Approaches for Cross-Correlating with 21 cm Observations of the EoR

UC Berkeley, Modeling the Extragalactic Sky workshop: January, 2018

Cross-Correlations with 21 cm, Line-Intensity Mapping, and the High-Redshift Frontier

Johns Hopkins Intensity Mapping Workshop: June, 2017

How to Complement 21 cm Probes of the Epoch of Reionization

Simons CCA, Astrophysics Seminar: April, 2017

How to Improve Our Understanding of Cosmic Reionization

Simons CCA, 21 cm cosmology workshop: December, 2016

High-z 21 cm Discussion Questions

From Wall to Web meeting, Berlin: July, 2016

Constraints on Hydrogen Reionization

HI 21 cm Cosmology Meeting, Cambridge University: June, 2016

Cross Correlations: Galaxies

University of Washington, Dark Universe Science Center Seminar: May, 2016

How to Improve Our Understanding of Cosmic Reionization

Stanford Intensity Mapping Workshop: March, 2016

Why Intensity Mapping?

Preparing for the 21 cm Revolution meeting, UC Irvine: October, 2015

Observational Synergies

Perimeter Institute, Cosmology Seminar: February, 2015

The Epoch of Reionization and the Lyman- α Forest

Ohio University, Physics Colloquium: Oct, 2014

The First Luminous Objects and the Epoch of Reionization

University of Pennsylvania, Physics Colloquium: Oct, 2014

The First Luminous Objects and the Epoch of Reionization

IGM workshop, Trieste: August, 2014

How to Search for Neutral Hydrogen Islands in the $z \sim 5.5$ IGM

Intergalactic Matters meeting, Heidelberg: June, 2014

How to Search for Neutral Hydrogen Islands in the $z \sim 5.5$ IGM

Drexel University, Physics Colloquium: November, 2012

First Light and Reionization

Yale University, Astrophysics Colloquium: November, 2012

Hydrogen and Helium Reionization

Institute for Advanced Study, Astrophysics Colloquium: October, 2012

The Epoch of Reionization

Santa Fe Cosmology Workshop: July, 2012

Reionization: Recent Results and Ongoing Work

University of Chicago, KICP Seminar: February, 2012

CO Intensity Mapping

University of Texas, Texas Cosmology Center Seminar: December, 2011

Hydrogen and Helium Reionization

University of Kentucky, Physics Colloquium: October, 2011

First Light and Reionization

University of Kentucky, Astrophysics Seminar: October, 2011

Hydrogen and Helium Reionization

Berkeley, DACOTA workshop: August, 2011

CO Intensity Mapping

Santa Fe Cosmology Workshop: July, 2011

Three Reionization Related Topics

Dominion Radio Astronomical Observatory, Novel Radio Telescopes meeting: June, 2011
Models of Reionization

Berkeley Theoretical Astrophysics Seminar: March, 2011
Reionization and the Redshifted 21 cm Line

Aspen Center for Physics, 21 cm Cosmology Workshop: June, 2010
Cross-correlating 21 cm and Galaxy Surveys

Aspen Center for Physics, 21 cm Cosmology Workshop: June, 2010
Semi-Numeric Models

Penn State University, The First Galaxies, Quasars, and Gamma-ray Bursts meeting: June, 2010
Detecting the Rise and Fall of 21 cm Fluctuations

The University of Maryland, Advances in Cosmology Workshop: May, 2010
The Rise and Fall of 21 cm Fluctuations

The University of Chicago, KICP Seminar: May, 2010
Hydrogen and Helium Reionization

Villanova University, Physics Colloquium: March, 2010
First Light and Reionization

Institute for the Physics & Mathematics of the Universe, Reionization Workshop: December, 2009
Cross-correlating 21 cm and Galaxy Surveys

The Institute for Advanced Study (Princeton): November, 2009
The Temperature of the IGM, Reionization, and the Lyman-alpha Forest

University of Pennsylvania Astrophysics Seminar: October, 2009
Hydrogen and Helium Reionization

Stockholm, Reionization with Mult-frequency Datasets: August, 2009
Cross-Correlating 21 cm and Galaxy Surveys

Napa Galaxy Formation meeting: February, 2009
The Temperature of the IGM and HeII Reionization

University of Maryland, Shedding Light on Dark Matter: April, 2009
Warm Dark Matter, the Temperature of the IGM, and the Ly- α Forest

Fermilab, Astrophysics Seminar: November, 2008
Future Probes of Hydrogen Reionization, Current Probes of Helium Reionization

Harvard, ITC Lunch: October, 2008
HeII Reionization and the HI Ly- α Forest

IAP, XXIVth IAP Colloquium: July, 2008
Detecting the Rise and Fall of 21 cm Fluctuations

Fermilab, CMBpol Workshop: Theory and Foregrounds: June, 2008
Reionization Science

Harvard CfA, Sackler Conference on 21 cm Cosmology: May, 2008
What can we Learn from First Generation 21 cm Surveys?

Columbia University ISCAP seminar: April, 2008
Detecting the Rise and Fall of 21 cm Fluctuations

Brown University Astrophysics Seminar: February, 2008
First Light and Reionization

University of Pennsylvania Astrophysics Seminar: February, 2008
Deciphering the Nature of Hydrogen Reionization

Carnegie Mellon Astrophysics Colloquium: February, 2008
First Light and Reionization

MIT Astrophysics Colloquium: February, 2008
Deciphering the Nature of Hydrogen Reionization

CITA Seminar: November, 2007
Probing Hydrogen Reionization

UCSB Astrophysics Seminar: October, 2007
Probing Hydrogen Reionization

Ohio State University, CCAP AGN Workshop: October, 2007
Quasar Clustering Review

MWA Collaboration Meeting, CfA: June, 2007
Optimizing the MWA to Constrain Reionization

CCAP Seminar, Ohio State University: April, 2007
Probing Hydrogen Reionization

MWA Collaboration Meeting, CfA: April, 2007
How I Learned to Stop Worrying and Love ~ 1 Decade in Scale

Berkeley Cosmology Seminar: March, 2007
Probing Hydrogen Reionization

University of Maryland, Particle Theory Seminar: March, 2007
Probing Hydrogen Reionization

MWA Collaboration Meeting, CfA: December, 2006

Recent Results

Santa Fe 2006 Cosmology Workshop: July, 2006

Hydrogen Reionization Review Talk

Berkeley Cosmology Seminar: March, 2005

J, T, and Delta from the Lyman Alpha Forest

SDSS Collaboration Meeting, NMSU: March, 2004

Clustering in the Lyman Alpha Forest

Santa Fe 2003 Cosmology Workshop: July, 2003

Cosmology with the Lyman Alpha Forest

PUBLICATIONS and PRE-PRINTS

(All publications are refereed, except for those with an asterisk.)

Sipple, J., & Lidz, A. 2023, *The Star Formation Efficiency During Reionization as Inferred from the Hubble Frontier Fields* **ApJ submitted** arXiv:2306.12087 [28 pages]

Sun, G., Lidz, A., Faisst, A. L., & Faucher-Giguère, C. A. 2023, *Probing bursty star formation by cross-correlating extragalactic background light and galaxy surveys* **MNRAS submitted** arXiv:2305.08847 [12 pages]

Yang, S., Lidz, A., Smith, A., Benson, A., & Li, H. 2023, *Efficient simulations of ionized ISM emission lines: A detailed comparison between the FIRE high-redshift suite and observations* **MNRAS submitted** arXiv:2304.09261 [15 pages]

Quezlou, M., Bird, S., Lidz, A., Sun, G. et al. 2023, *Boosting Line Intensity Map Signal-to-Noise with the Ly- α Forest Cross-Correlation* **MNRAS in press** arXiv:2303.17632 [12 pages]

La Plante, P., Mirocha, J., Gorce, A., Lidz, A., & Parsons, A. 2023, *Prospects for 21 cm-Galaxy Cross-Correlations with HERA and the Roman High Latitude Survey* **ApJ**, **944**, **59** [25 pages]

La Plante, P., Sipple, J., & Lidz, A. 2022, *Prospects for kSZ^2 -Galaxy Cross-Correlations during Reionization* **ApJ**, **928**, **162** [18 pages]

*White, N. E. et al. 2021, *The Gamow Explorer: a Gamma-Ray Burst Observatory to study the high redshift universe and enable multi-messenger astrophysics* **SPIE**, **1182109** [14 pages]

Padmanabhan, H., Breysse, P., Lidz, A., & Switzer, E. 2021, *Intensity Mapping from the Sky: Synergizing the Joint Potential of [OIII] and [CII] Surveys at Reionization* **MNRAS**, **515**, **5813** [9 pages]

Lidz, A., Chang, T. C., Mas-Ribas, L., & Sun, G. 2021, *Future Constraints on the Reionization History and the Ionizing Sources from Gamma-ray Burst Afterglows* **ApJ**, **917**, **58** [18 pages]

Jones, D., Palatnick, S., Chen, R., Beane, A., & Lidz, A. 2021, *Fuzzy Dark Matter and the 21 cm Power Spectrum* **ApJ**, **913**, **7** [15 pages]

Yang, S., Lidz, A., & Popping, G. 2021, *The prospects for observing [OIII] 52 micron emission from galaxies during the Epoch of Reionization* **MNRAS**, **504**, **723** [8 pages]

Yang, S., & Lidz, A. 2020, *An analytic model for OIII fine structure emission from high redshift galaxies* **MNRAS**, **499**, **3417** [17 pages]

La Plante, P., Lidz, A., Aguirre, J., & Kohn, S. 2020, *The 21 cm- kSZ - kSZ Bispectrum during the Epoch of Reionization* **ApJ**, **899**, **40** [24 pages]

Uzgil, B., Carilli, C., Lidz, A., Walter, F. et al. 2019, *The ALMA Spectroscopic Survey in the HUDF: Constraining cumulative CO emission at $1 \lesssim z \lesssim 4$ with power spectrum analysis of ASPECS LP data from 84 to 115 GHz* **ApJ** **887**, **37** [31 pages]

- Pandey, S., Baxter, E., Xu, Z., Orlowski-Scherer, J., Zhu, N., Lidz, A. et al. 2019, *Constraints on the redshift evolution of astrophysical feedback with Sunyaev-Zel'dovich effect cross-correlations* **Phys Rev D** **100**, **063519** [21 pages]
- *Chang, T. C., Beane, A., Dore, O., Lidz, A., et al. 2019, *Tomography of the Cosmic Dawn and Reionization Eras with Multiple Tracers* **US Astro 2020 Decadal Survey white paper** arXiv:1903.11744 [5 pages]
- *Liu, A. et al. 2019, *Cosmology with the Highly Redshifted 21 cm line* **US Astro 2020 Decadal Survey white paper** arXiv:1903.06240 [5 pages]
- *Mirocha, J. et al. 2019, *First Stars and Black Holes at Cosmic Dawn with Redshifted 21 cm Observations* **US Astro 2020 Decadal Survey white paper** arXiv:1903.06218 [5 pages]
- *Furlanetto, S. et al. 2019, *Fundamental Cosmology in the Dark Ages with 21 cm Line Fluctuations* **US Astro 2020 Decadal Survey white paper** arXiv:1903.06212 [5 pages]
- *Furlanetto, S. et al. 2019, *Insights into the Epoch of Reionization with the Highly-Redshifted 21 cm Line* **US Astro 2020 Decadal Survey white paper** arXiv:1903.06204 [5 pages]
- *Furlanetto, S. et al. 2019, *Synergies Between Galaxy Surveys and Reionization Measurements.* **US Astro 2020 Decadal Survey white paper** arXiv:1903.06197 [5 pages]
- *Alvarez, M. et al. 2019, *Mapping Cosmic Dawn and Reionization: Challenges and Synergies.* **US Astro 2020 Decadal Survey white paper** arXiv:1903.04580 [5 pages]
- *Kovetz, E. D., Breysse, P., Lidz, A., et al. 2019, *Astrophysics and Cosmology with Line-Intensity Mapping.* **US Astro 2020 Decadal Survey white paper** arXiv:1903.04496 [5 pages]
- Beane, A., Villaescusa-Navarro, F., & Lidz, A. 2018, *Measuring the EoR Power Spectrum Without Measuring the EoR Power Spectrum.* **ApJ**, **874**, **133** [10 pages]
- Beane, A. & Lidz, A. 2018, *Extracting Bias Using the Cross-Bispectrum: An EoR and 21 cm-[CII]-[CII] Case Study.* **ApJ**, **867**, **26** [14 pages]
- Lidz, A. & Hui, L. 2018, *The Implications of a Pre-reionization 21 cm Absorption Signal for Fuzzy Dark Matter.* **Phys. Rev. D**, **98**, **023011** [10 pages]
- *Hassan, S. Liu, A., Kohn, S., Aguirre, J.E., LaPlante, P., & Lidz, A., 2018, *Reionization Models Classifier using 21 cm Map Deep Learning.* **IAU Symposium Proceedings** arXiv:1801.06381 [5 pages].
- Kovetz, E. D., Viero, M. P., Lidz, A., et al. 2018, *Line-Intensity Mapping: 2017 Status Report.* **Phys. Reports**, **submitted** arXiv:1709.09066 [99 pages]
- Hill, J. C., Baxter, E. J., Lidz, A., Greco, J. P., & Jain, B. 2018, *The Two-Halo Term in Stacked Thermal Sunyaev-Zel'dovich Measurements: Implications for Self-Similarity.* **Phys Rev D.**, **97**, **083501** arXiv:1706.03753 [22 pages]

- Miranda, V., Lidz, A., Heinrich, C. H., & Hu, W. 2017, *CMB Signatures of Metal-Free Star Formation and Planck 2015 Polarization Data*, **MNRAS**, **467**, **4050** [7 pages]
- Vikram, V., Lidz, A., & Jain, B. 2017, *A Measurement of the Galaxy-Group Thermal Sunyaev-Zel'dovich Effect Cross-Correlation Function*, **MNRAS**, **467**, **2315** [16 pages]
- Lidz, A., & Taylor, J. 2016, *On Removing Interloper Contamination from Intensity Mapping Power Spectrum Measurements* **ApJ**, **825**, **143**[15 pages]
- *Lidz, A. 2016, *Modeling the Intergalactic Medium During the Epoch of Reionization*, **Book Chapter in "Understanding the Epoch of Cosmic Reionization: Challenges and Progress"**, Springer International Publishing, Ed. Andrei Mesinger [41 pages]
- Jensen, H., Majumdar, S., Mellema, G., Lidz, A., Iliev, I. T., Dixon, K. L. 2016, *The Wedge Bias in Reionization 21-cm Power Spectrum Measurements*, **MNRAS**, **456**, **66** [5 pages]
- Becker, G. D., Bolton, J. S., & Lidz, A. 2015, *Reionisation and High-Redshift Galaxies: The View from Quasar Absorption Lines*, **PASA**, **32**, **45** [29 pages]
- Beardsley, A. P., Morales, M. F., Lidz, A., Malloy, M., & Sutter, P. M. 2015, *Adding Context to JWST Surveys with Current and Future 21 cm Radio Observations*, **ApJ**, **800**, **128** [7 pages]
- Malloy, M., & Lidz, A. 2014, *How to Search for Neutral Hydrogen in the $z \sim 5.5$ IGM*, **ApJ** **799**, **179** [19 pages]
- Uzgil, B. D., Aguirre, J. E., Bradford, C. M., & Lidz, A. 2014, *Measuring Galaxy Clustering and the Evolution of [CII] Mean Intensity with far-IR Line Intensity Mapping During $0.5 \leq z \leq 1.5$* , **ApJ**, **793**, **116** [12 pages]
- Lidz, A., & Malloy, M. 2014, *On Modeling and Measuring the Temperature of the $z \sim 5$ IGM*, **ApJ**, **788**, **179** [19 pages]
- Taylor, J., & Lidz, A. 2014, *What do Observations of the Lyman α Fraction Tell us About Reionization?*, **MNRAS**, **437**, **2542** [12 pages]
- Lidz, A., Baxter, E. J., Adshead, P., & Dodelson, S. 2013, *Primordial non-Gaussianity and Reionization*, **PRD**, **88**, **023534** [17 pages]
- Malloy, M., & Lidz, A. 2013, *Identifying Ionized Regions in Noisy Redshifted 21 cm Data Sets*, **ApJ**, **767**, **68** [17 pages]
- Pullen, A., Chang, T.-C., Doré, O., & Lidz, A. 2012, *Cross Correlations as a Carbon Monoxide Detector*, **ApJ**, **768**, **1** [15 pages]
- Adshead, P., Baxter, E. J., Dodelson, S., & Lidz, A. 2012, *Non-Gaussianity and Excursion Set Theory: Halo Bias*, **PRD**, **86**, **063526** [13 pages]

- Zahn, O., Reichardt, C. L., Shaw, L., Lidz, A., et al. 2012, *Cosmic Microwave Background Constraints on the Duration and Timing of Reionization Using Data from the South Pole Telescope*, **ApJ**, **756**, **65** [16 pages]
- Lunnan, R., Vogelsberger, M., Frebel, A., Hernquist, L., Lidz, A., & Boylan-Kolchin, M. 2012, *The Effects of Patchy Reionization on Satellite Galaxies of the Milky Way*, **ApJ**, **746**, **109** [11 pages]
- Lidz, A., Furlanetto, S. R., Oh, S. P., Aguirre, J., Chang, T.-C., Doré, O., & Pritchard, J. R. 2011, *Intensity Mapping with Carbon Monoxide Emission Lines and the Redshifted 21 cm Line*, **ApJ**, **741**, **70** [19 pages]
- McQuinn, M., Hernquist, L., Lidz, A., & Zaldarriaga, M. 2011, *The Signatures of Large-scale Temperature Fluctuations in the Lyman-alpha Forest*, **MNRAS**, **415**, **977** [16 pages]
- Furlanetto, S. R., & Lidz, A. 2011, *Constraints on Quasar Lifetimes and Beaming from the HeII Ly- α Forest*, **ApJ**, **735**, **117** [8 pages]
- LoVerde, M., Marnerides, S., Hui, L., Menard, M., & Lidz, A. 2010, *Gravitational Lensing as Signal and Noise in Lyman-alpha Forest Measurements*, **Phys. Rev. D**, **82**, **103507** [18 pages]
- Lidz, A., Faucher-Giguère, C. A., Dall’Aglia, A., McQuinn, M., Fechner, C., Zaldarriaga, M., Hernquist, L., & Dutta, S. 2010, *A Measurement of Small Scale Structure in the $2.2 \leq z \leq 4.2$ Lyman-alpha Forest*, **ApJ**, **718**, **199** [33 pages]
- *Furlanetto, S., Lidz, A., Loeb, A., McQuinn, M. et al. 2009, *Cosmology from the Highly-Redshifted 21 cm Line*, **US Astro 2010 Decadal Survey white paper**, **arXiv:0902.3259** [8 pages]
- *Furlanetto, S., Lidz, A., Loeb, A., McQuinn, M. et al. 2009, *Astrophysics from the Highly-Redshifted 21 cm Line*, **US Astro 2010 Decadal Survey white paper**, **arXiv:0902.3011** [8 pages]
- Faucher-Giguère, C. A., Lidz, A., Zaldarriaga, M., & Hernquist, L. 2009, *A New Calculation of the Ionizing Background and the Effects of HeII Reionization*, **ApJ**, **703**, **1416** [28 pages]
- *Zaldarriaga, M., Colombo, L., Komatsu, E., Lidz, A., Mortonson, M., Oh, S. P., Pierpaoli, E., Verde, L., & Zahn, O. 2008, *CMBPol Mission Concept Study: Reionization Science with the Cosmic Microwave Background*, **CMBPol white paper**, **arXiv:0811.3918** [43 pages]
- McQuinn, M., Lidz, A., Zaldarriaga, M., Hernquist, L., Hopkins, P. F., Dutta, S., & Faucher-Giguère, C. A. 2009, *HeII Reionization and its Effect on the IGM*, **ApJ**, **694**, **842** [25 pages]
- Lidz, A., Zahn, O., Furlanetto, S. R., McQuinn, M., Hernquist, L., & Zaldarriaga, M. 2009, *Probing Reionization with the 21 cm-Galaxy Cross Power Spectrum*, **ApJ**, **690**, **252** [15 pages]

- Dijkstra, M., Lidz, A., Pritchard, J. R., Greenhill, L. J., Mitchell, D. A., Ord, S. M., & Wayth, R. B. 2008, *On the Detectability of the Hydrogen 3-cm Fine-Structure Line from the Epoch of Reionization*, **MNRAS**, **390**, **1430** [7 pages]
- Faucher-Giguère, C. A., Lidz, A., Hernquist, L., & Zaldarriaga, M. 2008, *Evolution of the Intergalactic Opacity: Implications for the Ionizing Background, Cosmic Star Formation, and Quasar Activity*, **ApJ**, **688**, **85** [23 pages]
- Faucher-Giguère, C. A., Lidz, A., Hernquist, L., & Zaldarriaga, M. 2008, *A Flat Photoionization Rate at $2 \leq z \leq 4.2$: Evidence for a Stellar-Dominated UV Background and against a Decline of Cosmic Star Formation beyond $z \sim 3$* , **ApJL**, **682**, **9** [4 pages]
- *Faucher-Giguère, C. A., Lidz, A., & Hernquist, L. 2008, *Numerical Simulations Unravel the Cosmic Web: Past, Present, and Future*, **Science** **319**, **52** [4 pages]
- Faucher-Giguère, C. A., Prochaska, J. X., Lidz, A., Hernquist, L., & Zaldarriaga, M. 2008, *A Direct Precision Measurement of the Intergalactic Lyman-Alpha Opacity at $2 \leq z \leq 4.2$* , **ApJ** **681**, **831** [25 pages]
- McQuinn, M., Lidz, A., Zaldarriaga, M., Hernquist, L., & Dutta, S. 2008, *Probing the Neutral Fraction of the IGM with GRBs During the Epoch of Reionization*, **MNRAS**, **388**, **1101** [10 pages]
- Lidz, A., Zahn, O., McQuinn, M., Zaldarriaga, M., & Hernquist, L. 2008, *Detecting the Rise and Fall of 21 cm Fluctuations with the Murchison Widefield Array*, **ApJ** **680**, **962** [13 pages]
- Dijkstra, M., Lidz, A., & Wyithe, S. 2007, *The Impact of the IGM on High-Redshift Lyman-alpha Emission Lines*, **MNRAS**, **377**, **1175** [12 pages]
- Faucher-Giguère, C. A., Lidz, A., Zaldarriaga, M., & Hernquist, L. 2008, *The Line-of-Sight Proximity Effect and the Mass of Quasar Host Halos*, **ApJ** **673**, **39** [23 pages]
- Lidz, A., McQuinn, M., Zaldarriaga, M., Hernquist, L., & Dutta, S. 2007, *Quasar Proximity Zones and Patchy Reionization*, **ApJ**, **670**, **39** [21 pages]
- Hopkins, P.F., Lidz, A., Hernquist, L., Coil, A., Myers, A.D., Cox, T.J., & Spergel, D.N. 2007, *The Co-Formation of Spheroids and Quasars Traced in their Clustering*, **ApJ**, **662**, **110** [21 pages]
- Furlanetto, S.R., & Lidz, A. 2007, *The Cross-Correlation of High-Redshift 21 cm and Galaxy Surveys*, **ApJ**, **660**, **1030** [9 pages]
- McQuinn, M., Lidz, A., Zahn, O., Dutta, S., Hernquist, L., & Zaldarriaga, M. 2007, *The Morphology of HII Regions During Reionization*, **MNRAS**, **377**, **1043** [21 pages]
- Lidz, A., Zahn, O., McQuinn, M., Zaldarriaga, M., Dutta, S., & Hernquist, L. 2007, *Higher Order Contributions to the 21 cm Power Spectrum*, **ApJ**, **659**, **865** [12 pages]

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