

WEISHUANG LINDA XU

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EDUCATION

Harvard University

CENTER FOR FUNDAMENTAL LAWS OF NATURE

PhD Candidate *Advisors: Lisa Randall, Cora Dvorkin*

2015 – Present

Cambridge, MA

Massachusetts Institute of Technology

DEPARTMENT OF PHYSICS

BS in Physics, Minor in Astronomy, Minor in Music

2011-2015

Cambridge, MA

RESEARCH INTERESTS

Dark matter, Physics beyond the Standard Model, Early universe cosmology, Large- & small-scale structure

PUBLICATIONS

2010.15129 **A Closer Look at CP-Violating Higgs Portal Dark Matter as a Candidate for the GCE**
Katherine Fraser, Aditya Parikh, & WLX, 2020, Submitted to JHEP

2006.09395 **Accurately Weighing Neutrinos with Cosmological Surveys**
WLX, Nicholas DePorzio, Julian B. Muñoz, & Cora Dvorkin, 2020, Accepted by PRD

2006.09380 **Finding eV-scale Light Relics with Cosmological Observables**
Nicholas DePorzio, WLX, Julian B. Muñoz, & Cora Dvorkin, 2020, Submitted to PRD

1910.14669 **Searching for Dark Photon Dark Matter with Cosmic Ray Antideuterons**
Lisa Randall & WLX, 2019, J. High Energ. Phys. 2020, 81 (2020)

1904.08949 **Testing Λ CDM With Dwarf Galaxy Morphology**
WLX & Lisa Randall, 2019, Astrophys. J. 2020, 900 (2020) no.1

1802.06788 **Probing sub-GeV Dark Matter-Baryon Scattering with Cosmological Observables**
WLX, Cora Dvorkin, & Andrew Chael, 2018, Phys.Rev. D97 (2018) no.10, 103530

TEACHING

Harvard Physics 15a: Mechanics and Special Relativity

Spring 2020

Harvard Physics 143a: Quantum Mechanics I

Spring 2019

Harvard Physics 212: Graduate Cosmology

Fall 2018

Harvard Applied Physics 50b: Electricity & Magnetism

Spring 2018

SELECTED TALKS

Probing sub-GeV DM-Baryon Scattering with Cosmological Observables [Invited]

TRIUMF Dark Matter Forum

December 2020

Thermal Dark Sectors in the Early and Late Universe [Invited]

KICP Seminar

December 2020

Thermal Dark Sectors in the Early and Late Universe [Invited]

UC Irvine Particle Theory Seminar

November 2020

Thermal Dark Sectors in the Early and Late Universe [Invited]

UCSC SCIPP Seminar

November 2020

Thermal Dark Sectors in the Early and Late Universe [Invited]

UMD EPT Seminar

November 2020

Searching for Annihilating Dark Matter with Cosmic-Ray Antideuterons [Invited]

BSM PANDEMIC Seminar

November 2020

Thermal Dark Sectors in the Early and Late Universe [Invited]

UCSD HEP Seminar	<i>October 2020</i>
Thermal Dark Sectors in the Early and Late Universe [Invited]	
UIUC High Energy Phenomenology Seminar	<i>October 2020</i>
Searching for Dark Photon Dark Matter with Cosmic-Ray Antideuterons [Invited]	
MIT CMB/BSM/DM/QCD Seminar	<i>September 2020</i>
Phenomenology of CP-Violating Higgs Portal Dark Matter	
Cosmology From Home 2020	<i>August 2020</i>
Cosmological Measurements of Neutrinos and Other Light Relics [Invited]	
New England Theoretical Cosmology, Gravity and Fields Workshop	<i>July 2020</i>
Accurately Weighing Neutrinos with Cosmological Surveys	
MIT Dark Matter Journal Club	<i>July 2020</i>
Phenomenology of CP-Violating Higgs Portal Dark Matter	
Phenomenology 2020 Symposium	<i>May 2020</i>
Probing sub-GeV Dark Matter-Baryon Scattering with Cosmology [Invited]	
BCCP Cosmology Journal Club	<i>January 2020</i>
The many magnitudes of darkness	
Science In The News Outreach talk	<i>November 2019</i>
Towards determining the Neutrino Hierarchy with Cosmological data	
Harvard Particle Lunch Seminar	<i>October 2019</i>
Searching for Dark Photon Dark Matter with Cosmic-Ray Antideuterons	
Harvard Particle Lunch Seminar	<i>May 2019</i>
Searching for Dark Photon Dark Matter with Cosmic-Ray Antideuterons	
UCLA Antideuteron 2019	<i>April 2019</i>
Testing CDM with Dwarf Galaxy Morphology [Invited]	
MIT CMB/BSM/DM/QCD Seminar	<i>Nov 2018</i>
Testing CDM with Dwarf Galaxy Morphology	
Harvard Particle Lunch Seminar	<i>Nov 2018</i>
Probing sub-GeV Dark Matter-Baryon Scattering with Cosmological Observables	
TRISEP Cosmology Summer School	<i>July 2018</i>
Probing sub-GeV Dark Matter-Baryon Scattering with Cosmological Observables	
Harvard Particle Lunch Seminar	<i>April 2018</i>