

## SHIRLEY WEISHI LI

CCAPP, Department of Physics  
The Ohio State University  
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### Research Interests

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Neutrino physics and astrophysics, particle and nuclear astrophysics, neutron stars

### Education

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Ph.D., Physics, The Ohio State University Advisor: Prof. John F. Beacom Expected Graduation Date: Summer 2017	2011 –
B.S. with Summa Cum Laude, Physics, The Ohio State University Advisor: Prof. Richard J. Furnstahl	2011

### Awards

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Louise B. Vetter Research Award (sponsored by Phi Kappa Phi)	2016
The OSU Presidential Fellowship	2016 – 2017
The OSU Hayes Graduate Research Forum Talk Award	2016
The OSU Department of Physics graduate student poster competition	2014 – 2015
The OSU Department of Physics Smith Senior Awards	2011
Conference Experience for Undergraduates at APS DNP Meeting	2010
The OSU Department of Physics Smith Junior Awards	2010
The OSU Undergraduate Research Office Summer Research Fellowship	2010

### Publications

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5. “Echo Technique to Distinguish Flavors of Astrophysical Neutrinos”  
**Shirley W. Li**, Mauricio Bustamante, John F. Beacom  
Submitted to PRL [arXiv:1606.06290]
4. “Tagging Spallation Backgrounds with Showers in Water-Cherenkov Detectors”  
**Shirley W. Li**, John F. Beacom  
Phys. Rev. D 92, 105033 (2015) [arXiv:1508.05389]
3. “Spallation Backgrounds in Super-Kamiokande Are Made in Muon-Induced Showers”  
**Shirley W. Li**, John F. Beacom  
Phys. Rev. D 91, 105005 (2015) [arXiv:1503.04823]
2. “First calculation of cosmic-ray muon spallation backgrounds for MeV astrophysical neutrino signals in Super-Kamiokande”  
**Shirley W. Li**, John F. Beacom  
Phys. Rev. C 89, 045801 (2014) [arXiv:1402.4687]
1. “The Similarity Renormalization Group with Novel Generators”  
**Shirley W. Li**, E. R. Anderson, R. J. Furnstahl  
Phys. Rev. C 84, 054002 (2011) [arXiv:1106.2835]

## Scientific Presentations

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22. Plenary talk, NNN16, Beijing, China	11/2016
21. Invited Talk, OSU Nuclear Theory Seminar, Columbus, OH	10/2016
20. Invited Talk, PSU High-Energy Physics Seminar, State College, PA	10/2016
19. Invited Talk, MSU NSCL Theory Seminar, East Lansing, MI	09/2016
18. Invited Talk, FroST 2016, Batavia, IL	03/2016
17. Invited Talk, SN@DUNE, Blacksburg, VA	03/2016
16. Talk, Flavor Observations with Supernova Neutrinos, Seattle, WA	08/2016
15. Talk, OSU CCAPP summer seminar, Columbus, OH	07/2016
14. Talk, Phenomenology 2016, Pittsburgh, PA	05/2016
13. Talk, APS April Meeting, Salt Lake City, UT	04/2016
12. Talk, PIKIO, Cincinnati, OH	02/2016
11. Poster, NNN15, Stony Brook, NY	10/2015
10. Talk, Nu@Fermilab, Batavia, IL	07/2015
9. Talk, CIPANP 2015, Vail, CO	05/2015
8. Talk, IceCube Particle Astrophysics Symposium, Madison, WI	05/2015
7. Talk, OSU CCAPP summer seminar, Columbus, OH	06/2014
6. Poster, Neutrino 2014, Boston, MA	06/2014
5. Talk, APS April Meeting, Savannah, GA	04/2014
4. Talk, APS DNP Meeting, Newport Beach, CA	10/2012
3. Talk, OSU Physics Summer Talk Series, Columbus, OH	08/2012
2. Poster, APS DNP Meeting, Santa Fe, NM	11/2010
1. Poster, OSU Fall Undergraduate Research Day Student Poster Forum, Columbus, OH	10/2010

## Summer Schools

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SLAC Summer Institute: Shining Light on Dark Matter member of group selected for best student project	2014
Tri-Institute Summer School on Elementary Particles	2013

## Teaching Experience

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Teaching Assistant, Physics 1250, Mech, Thermo, Waves, OSU	2012 – 2013
Grader, Physics 834, Mathematical Methods, OSU	2011

## Research Advising Experience

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Guanying Zhu (graduate student at OSU)

## Service

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Referee for Journal of Physics G: Nuclear and Particle Physics

## Outreach

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Lecturer, Young Scholars Program, Columbus, OH	2016
Volunteer, “Astro Camp”, Columbus, OH	2016
Volunteer Judge, State Science Day, Columbus, OH	2014 – 2016
Volunteer Judge, OSU Denman Undergraduate Research Forum	2016
Talk, “How to Give a Scientific Talk”, ASPIRE CAMP, OSU	2015

Volunteer Judge, OSU Natural and Mathematical Sciences Undergrad Research Forum	2015
Blog article, “My first conference talk experience”, Blog “A day in the life...”, OSU	2012
Demonstrator, “My Quantum Mom” at COSI, Columbus, OH	2011

## Collaborations

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DUNE

## References

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Prof. John Beacom  
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The Ohio State University  
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