

# ANDRÉS N. SALCEDO

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## ACADEMIC APPOINTMENTS

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- Postdoctoral Research Associate** *February 2022 - Present*  
Department of Astronomy and Steward Observatory, University of Arizona
- Postdoctoral Fellow** *August 2021 - February 2022*  
Department of Astronomy, The Ohio State University

## EDUCATION

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- The Ohio State University, Columbus Ohio** *August 2015 - June 2021*  
Ph.D. in Astronomy  
Advisor: David Weinberg
- Lehigh University, Bethlehem Pennsylvania** *August 2011 - May 2015*  
B.S. in Physics, B.S. in Mathematics

## FELLOWSHIPS AND HONORS

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- Ohio State University Graduate Enrichment Fellowship *2015-2021*  
Department of Energy Computational Science Graduate Fellow *2016 - 2020*  
C.C. Hsiung Award, Lehigh University Mathematics Department *2015*  
Lehigh University Eckardt Scholar *2012-2015*  
Academic Merit Award, Lehigh University *2011-2015*

## TALKS AND POSTERS

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- The 22nd Guo Shoujing Meeting of the Chinese Astronomical Society,**  
*Elucidating galaxy assembly bias in SDSS*, Sun Yat-sen University, Zhuhai *November 2020*
- DESI Group Meeting, Cosmology with Cluster Cross-Correlations and**  
*Topics in Assembly Bias*, Lawrence Berkeley Laboratory *September 2020*
- Tuesday Astrophysics and COsmology Seminar, Cosmology with Cluster Cross-**  
*Correlations and Topics in Assembly Bias*, University of Arizona *September 2020*
- Cosmology X Data Science Group Meeting, Cosmology with Cluster Cross-**  
*Correlations and Constraining Galaxy Assembly Bias in SDSS*,  
Center for Computational Astrophysics, Flatiron Institute *August 2020*
- 2020 Department of Energy Computational Science Graduate Fellowship**  
**Annual Program Review, Cosmology With Stacked-Cluster Weak Lensing and**  
*Cluster-Galaxy Cross-Correlations* *July 2020*
- Department of Energy Computational Science Graduate Fellowship**  
**Annual Program Review Poster, Washington D.C.** *July 2017,2018,2019*
- Halo and Galaxy Assembly Bias - from Theory to Observation, Neighbor Bias**  
*in Halo Clustering and Cosmological Forecasting with Cluster-Cross Correlations*,  
Shanghai Jiao-Tong University *June 2019*
- SUGAR-RUSH Conference, Secondary and Neighbor Bias in Halo Clustering,**  
Shanghai Jiao-Tong University *June 2018*
- OSU-CCAPP Seminar, Secondary and Neighbor Bias in Halo Clustering,**  
The Ohio State University *June 2018*
- AAS Poster, Assembly Bias of Dark Matter Halos in LasDamas** *January 2015*
- AAS Poster, Dark Matter Halo Clustering in the LasDamas Simulations** *January 2014*

## PUBLICATIONS

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- Salcedo, A. N.**, Weinberg, D. H., Wu, H.-Y., amp; Wibking, B. D. (2022). Exploiting non-linear scales in galaxygalaxy lensing and galaxy clustering: A forecast for the Dark Energy Survey. Monthly Notices of the Royal Astronomical Society, 510(4), 53765391. <https://doi.org/10.1093/mnras/stab3793>
- Shin, T., Jain B., Adikhari, S., Baxter, E.J., Chang, C., Pandey, S., **Salcedo, A. N.**, ... Zhang, Y. (2021). The mass and galaxy distribution around SZ-selected clusters. Monthly Notices of the Royal Astronomical Society, 507(4), 5758-5779. doi:10.1093/mnras/stab2505
- Wu, H., Weinberg, D. H., **Salcedo, A. N.**, Wibking, B. D. (2021). Cosmology with Galaxy Cluster Weak Lensing: Statistical Limits and Experimental Design. The Astrophysical Journal, 910(1), 28. doi:10.3847/1538-4357/abdc23
- Salcedo, A. N.**, Zu, Y., Zhang, Y., Wang, H., Yang, X., Wu, Y., . . . Weinberg, D. H. (2020). Elucidating Galaxy Assembly Bias in SDSS. arXiv Preprints, 1-19. Retrieved from <https://arxiv.org/abs/2010.04176>
- Wibking, B. D., Weinberg, D. H., **Salcedo, A. N.**, Wu, H-Y., Singh, S., Rodrguez-Torres, S., . . . Eisenstein, D. J. (2019). Cosmology with galaxy-galaxy lensing on non-perturbative scales: Emulation method and application to BOSS LOWZ. Monthly Notices of the Royal Astronomical Society, 492(2), 2872-2896. doi:10.1093/mnras/stz3423
- Salcedo, A. N.**, Wibking, B. D., Weinberg, D. H., Wu, H.-Y., Ferrer, D., Eisenstein, D., Pinto, P. (2019). Cosmology with Stacked Cluster Weak Lensing and Cluster-Galaxy Cross-Correlations. Monthly Notices of the Royal Astronomical Society. doi: 10.1093/mnras/stz2963
- Wu, H.-Y., Weinberg, D. H., **Salcedo, A. N.**, Wibking, B. D., Zu, Y. (2019). Covariance matrices for galaxy cluster weak lensing: from virial regime to uncorrelated large-scale structure. Monthly Notices of the Royal Astronomical Society. doi: 10.1093/mnras/stz2617
- Wibking, B. D., **Salcedo, A. N.**, Weinberg, D. H., Garrison, L. H., Ferrer, D., Tinker, J., . . . Pinto, P. (2018). Emulating galaxy clustering and galaxy-galaxy lensing into the deeply non-linear regime: Methodology, information, and forecasts. Monthly Notices of the Royal Astronomical Society, 484(1), 989-1006. doi:10.1093/mnras/sty2258
- Salcedo, A. N.**, Maller, A. H., Berlind, A. A., Sinha, M., McBride, C. K., Behroozi, P. S., . . . Weinberg, D. H. (2018). Spatial clustering of dark matter haloes: Secondary bias, neighbour bias, and the influence of massive neighbours on halo properties. Monthly Notices of the Royal Astronomical Society, 475(4), 4411-4423. doi:10.1093/mnras/sty109

## SERVICE EXPERIENCE

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Graduate Research Co-Mentor (with H. Y. Wu) of Chenxiao Zeng	<i>Spring 2020 - Present</i>
First Year Graduate Student Mentor	<i>Fall 2019-Spring 2020</i>
Coordinator of Graduate Klondike Colloquium Series	<i>Summer 2019-2020</i>
Graduate Member of Admissions Committee Interviews	<i>February-March 2019</i>
Founder and Coordinator of Graduate Order of Magnitude Club	<i>Fall 2017-Spring 2018</i>
Friends of Ohio State Astronomy and Astrophysics Event	<i>October 2018</i>
Parent and Family Weekend Planetarium Shows	<i>October 2015</i>
OSU Astronomy Society Roof Night	<i>August 2015</i>
Lehigh University Grader MATH208 (Complex Variables)	<i>August 2014 - May 2015</i>
MNRAS Referee	
ApJ Referee	

## REFERENCES

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**Prof. David H. Weinberg**

Department of Astronomy  
The Ohio State University  
weinberg.21@osu.edu

**Prof. Ying Zu**

School of Physics and Astronomy  
Shanghai Jiao Tong University  
yingzu@sjtu.edu.cn

**Prof. Chris Hirata**

Department of Physics  
The Ohio State University  
hirata.10@osu.edu

**Prof. Hao-Yi Wu**

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Boise State University  
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