

# Andrew S. Graus

## PERSONAL INFORMATION

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ADDRESS: Department of Astronomy  
The University of Texas at Austin  
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## APPOINTMENTS

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SEPTEMBER 2018 - PRESENT | Harlan J. Smith Postdoctoral Research Fellow  
The University of Texas at Austin

## EDUCATION

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JUNE 2012 - JUNE 2018 | Ph.D in Physics and Astronomy  
The University of California, Irvine  
Ph.D Advisor: James Bullock

AUGUST 2007 - MAY 2012 | B.S. in Astronomy and Astrophysics  
The University of Michigan, Ann Arbor  
Graduated with High Honors

## OUTREACH, TEACHING, AND VOLUNTEER WORK

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February 2020 | Astronomy on Tap co-host  
Austin, Texas

September 2019 | Astronomy on Tap speaker  
Austin, Texas

September 2019 - present | Postdoctoral representative to the Astronomy Department  
University of Texas at Austin

September 2017 - August 2018 | Representative on the Inclusive Excellence Committee  
Physics and Astronomy Department at The University  
of California, Irvine

March 2015 - August 2018 | Member of the Physics Grad Caucus  
Physics and Astronomy Department at The University  
of California, Irvine

January 2014 - August 2018 | Volunteer for the Astronomy Outreach Program at  
The University of California, Irvine

July - August 2012 | California State Summer School for Mathematics and  
Science (COSMOS), Teaching Assistant

August 2012 - December 2013	Astronomy Outreach Teaching Assistant at the University of California, Irvine
May 2010 - May 2011	President of the Student Astronomical Society at The University of Michigan
May 2010 - August 2011	Volunteer for the Detroit Observatory
January 2010 - May 2012	Tutor for the Department of Astronomy and Astrophysics the University of Michigan
March 2009 - May 2012	Volunteer for the Student Astronomical Society at the University of Michigan

## AWARDS AND GRANTS

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June 2017	Award for Outstanding Service to the Department Physics and Astronomy Department The University of California, Irvine
June 2017	XSEDE Research request for computer time on Stampede 2 *141,490 Node hours awarded.
June 2012 - August 2012	Competitive Edge Scholar The University of California, Irvine

## SELECTED CONFERENCES AND PRESENTATIONS

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*talk* - *Graus, A. S.*, Dwarf Galaxy Stellar and Dark Matter Distributions from Simulations. Talk given at Matera Oscura: Cosmology and Dark matter within Galaxies and Clusters. Matera, Italy. September 2 - 6th 2019.

*talk* - *Graus, A. S.*, Constraints on Reionization from the Local Group. Talk given at Small Galaxies, Cosmic Questions. Durham University, UK. July 29th - August 2nd 2019.

*talk* - *Graus, A. S.*, Searching for Biases in Observations of Local Group Dwarf Galaxies Using Simulations. Talk given at the Harvard-Smithsonian Center for Astrophysics Galaxies and Cosmology Seminar. October 3rd, 2017.

*talk* - *Graus, A. S.*, Searching for Biases in Observations of Local Group Dwarf Galaxies Using Simulations. Stanford Cosmology Seminar. September 25, 2017.

*talk* - *Graus, A. S.*, Bullock, J. S., Boylan-Kolchin, M., & Weisz, D. R. What do we measure when we measure star formation histories. Talk given at Astronomy in the 2020s: Synergies with WFIRST. Baltimore, MD. June 26- 28, 2017.

## PUBLISHED FIRST AUTHOR WORKS

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*Graus, A. S., Bullock, J. S., Fitts, A., et al.* 2019, A predicted correlation between age gradient and star formation history in FIRE dwarf galaxies. *MNRAS*, 490, 1186.

*Graus, A. S., Bullock, J. S., Kelley, Tyler, Boylan-Kolchin, M., Garrison-Kimmel, Shea, & Qi, Yuewen* 2019, How low does it go? Too few Galactic satellites with standard reionization quenching *MNRAS*, 488, 4585.

*Graus, A. S., Bullock, J. S., Boylan-Kolchin, M., & Nierenberg, A. M.* 2018, Through a Smoother Lens: An expected absence of LCDM substructure detections from hydrodynamic and dark matter only simulations, *MNRAS*, 480, 1322.

*Graus, A. S., Bullock, J. S., Boylan-Kolchin, M., & Weisz, D. R.* 2016, Push it to the limit: Local Group constraints on high-redshift stellar mass functions for  $M_{\star} > 10^5 M_{\odot}$ , *MNRAS*, 456, 477

*Graus, A. S., Lamb, J. B., & Oey, M. S.* 2012, Discovery of New, Dust-poor B[e] Super-giants in the Small Magellanic Cloud, *ApJ*, 759, 10

## PUBLISHED COAUTHOR WORKS

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Yu, S., Bullock, J. S., Wetzel, A., Sanderson, R. E., *Graus, A. S.*, et al. Stars made in outflows may populate the stellar halo of the Milky Way. 2020, submitted to *MNRAS*.

Fitts, A., Boylan-Kolchin, M., Bozek, B., Bullock, J. S.; *Graus, A.*, et al. Dwarf galaxies in CDM, WDM, and SIDM: disentangling baryons and dark matter physics. 2019. *MNRAS*. 490, 962.

Garrison-Kimmel, S., Wetzel, A., Hopkins, P. F., Sanderson, R. E., El-Badry, K., *Graus, A.*, et al. Star formation histories of dwarf galaxies in the FIRE simulations: dependence on mass and Local Group environment, *MNRAS*, 489, 4574.

Kelley, T., Bullock, J. S., Garrison-Kimmel, S., Boylan-Kolchin, M., Pawlowski, M. S., *Graus, A. S.* Phat ELVIS: The inevitable effect of the Milky Way's disc on its dark matter subhaloes, 2019, *MNRAS*, 487, 4409.

Guszejnov, D., Hopkins, P. F., & Graus, A. S. Is it possible to reconcile extragalactic IMF variations with a universal Milky Way IMF? 2019, *MNRAS*, 485, 4852

Garrison-Kimmel, S., Wetzel, A., Bullock, J. S., Hopkins, P. F., Boylan-Kolchin, M., Faucher-Giguère, C.-A., Kereš, D., Quataert, E., Sanderson, R. E., *Graus, A. S.*, Kelley, T. 2017 Not so lumpy after all: modelling the depletion of dark matter subhaloes by Milky Way-like galaxies *MNRAS*, 471, 1709

Elbert, O. D., Bullock, J. S., Kaplinghat, M., Garrison-Kimmel, S., *Graus, A. S.*, Rocha, M. 2017, A Testable Conspiracy: Simulating Baryonic Effects on Self-Interacting Dark Matter Halos, accepted to *ApJ* arXiv:1609.08626

Golden-Marx, J. B., Oey, M. S., Lamb, J. B., *Graus, A. S.*, & A. S White 2016, Classical Oe Stars in the Field of the Small Magellanic Cloud, *ApJ*, 819, 55.

Lamb, J. B., Oey, M. S., Segura-Cox, D. M., *Graus, A. S.*, Kiminki, D. C., Golden-Marx, J. B., & Parker, J. Wm. 2016, The Runaways and Isolated O-Type Star Spectroscopic Survey of the SMC (RIOTS4), *ApJ*, 817, 113

Oey, M. S., Lamb, J. B., Kushner, C. T., Pellegrini, E. W., & *Graus, A. S.* 2013, A Sample of OB Stars that Formed in the Field, *ApJ*, 768, 66

Lamb, J. B., Oey, M. S., *Graus, A. S.*, Adams, F. C., & Segura-Cox, D. M. 2013, The Initial Mass Function of Field OB Stars in the Small Magellanic Cloud, *ApJ*, 763, 101

## PUBLISHED CONFERENCE PROCEEDINGS

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*Graus, A. S.*, Oey, M. S., & Lamb, J. B. 2017, The B[e] Phenomenon: Forty Years of Studies, ASP Conference Series, 508, 273.

Golden-Marx, J. B., Oey, M. S., Lamb, J. B., & *Graus, A. S.* 2014 (arXiv:1411.3185), To appear in the proceedings of 'Bright Emissaries: Be Stars as Messengers of Star Disk Physics', eds. T.A.A. Sigut & C.E. Jones, ASP Conference Series. 8 pages, 4 figures.

Lamb, J. B., Oey, M. S., *Graus, A. S.*, & Segura-Cox, D. M. 2012, The IMF of Field OB Stars in the Small Magellanic Cloud, Proceedings of a Scientific Meeting in Honor of Anthony F. J. Moffat, 465, 440.