

# Megan BEDELL, Ph.D.

## ABOUT

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POSITION: Flatiron Research Fellow  
ADDRESS: Center for Computational Astrophysics, Flatiron Institute  
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## EDUCATION

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UNIVERSITY OF CHICAGO 2012 - 2017  
PhD in Astronomy & Astrophysics  
Dissertation Title: Illuminating the Origins of Planets with Solar Twins  
Advisor: Jacob Bean  
HAVERFORD COLLEGE 2008 - 2012  
Graduated Magna Cum Laude  
B.S. with Honors in Physics and with Highest Honors in Astronomy

## HONORS & AWARDS

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Josephine DeKarman Fellow 2016 - 2017  
Lewis & Clark Field Scholar in Astrobiology 2016 - 2017  
Illinois Space Grant Fellow 2016 - 2017  
University of Chicago Harper Dissertation Fellow 2016 - 2017  
NSF Graduate Research Fellow 2013 - 2016  
University of Chicago McCormick Fellow 2012 - 2014  
Phi Beta Kappa 2012

## OBSERVING TIME

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PI & lead observer at Keck/HIRES (NASA time) 4 half-nights, 2017  
PI of NASA Spitzer program 15.4 hours, Cycle-12 (2016)  
Lead observer at ESO La Silla/HARPS 47 nights, 2013 - 2017  
Observer at Keck/HIRES 2 half-nights, 2015  
Observer at KPNO/WIYN 0.9m 3 nights, November 2011  
Lead observer at Maria Mitchell Observatory/Loines 24-inch 40 nights, July - Sept. 2010

## INVITED SEMINARS

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Max-Planck-Institut für Astronomie, PSF Coffee August 2017  
Harvard CfA, Stars & Planets Seminar November 2016  
MIT, Exoplanet Tea November 2016

## SELECTED CONFERENCE PRESENTATIONS

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Know Thy Star, Know Thy Planet (contributed talk) October 2017  
AAS 229th Meeting (dissertation talk) January 2017  
Linking Exoplanet & Disk Compositions (contributed talk) September 2016  
Extreme Solar Systems III (contributed talk) November 2015  
Planet Signatures from Precision Spectroscopy (invited talk) August 2015

## TEACHING & MENTORSHIP

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Mentor, UChicago Women in Physics and Astronomy	2014 - 2016
Invited Speaker, UChicago GeoUnion	2015
Guest Lecturer, Universidade de São Paulo	2015
TA, Physical Sciences 120: The Origin of the Universe	2013
TA, Physical Sciences 119: Stellar Astronomy & Astrophysics	2012
Peer Tutor in Physics and Astronomy at Haverford College	2011 - 2012

## OUTREACH

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Co-founder, Chicago Astronomy on Tap	2016 - 2017
Life Long Learning Presenter	2015 - 2017
Astronomy Conversations Presenter	2014 - 2017
Haverford College Public Observing Coordinator	2009 - 2010; 2011 - 2012

## PROFESSIONAL SERVICE

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Referee for AAS journals	2015 - present
Science Organizing Committee, <i>TESS Preparatory Workshop</i>	2018
Time Allocation Committee, <i>Transiting Exoplanet Survey Satellite</i>	2017
Science Organizing Committee, <i>Precision Spectroscopy</i>	2017
Leader, UChicago Exoplanet Journal Club	2014 - 2015

## PRESS

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[“Astronomers discover dark past of planet-eating ‘Death Star,’”](#) UChicago press release.  
[“Jupiter Twin Discovered Around Solar Twin,”](#) ESO press release, covered by Associated Press, Discovery News, Space.com, and others.  
[“Oldest Solar Twin Identified,”](#) ESO press release, covered by Science News, Space.com, and others.

## PUBLICATION LIST

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### REFEREED PAPERS

1. dos Santos, L., Meléndez, J., **Bedell, M.**, et al., *Spectroscopic binaries in the Solar Twin Planet Search program: from substellar-mass to M dwarf companions*, 2017, MNRAS, 472, 3425
2. Gandolfi, D., Barragán, O., Hatzes, A. P., et al., *The Transiting Multi-planet System HD 3167: A 5.7  $M_E$  Super-Earth and an 8.3  $M_E$  Mini-Neptune*, 2017, AJ, 154, 123
3. **Bedell, M.**, Bean, J.L., Meléndez, J., et al., *Kepler-11 is a Solar Twin: Revising the Masses and Radii of Benchmark Planets via Precise Stellar Characterization*, 2017, ApJ 839, 94
4. Malik, M., Grosheintz, L., Mendonça, J. M., et al., *HELIOS: An Open-Source, GPU-Accelerated Radiative Transfer Code For Self-Consistent Exoplanetary Atmospheres*, 2017, AJ 153, 56
5. Meléndez, J., **Bedell, M.**, Bean, J.L., et al., *The Solar Twin Planet Search V. Close-in, low-mass planet candidates and evidence of planet accretion in the solar twin HIP 68468*, 2017, A&A 597, A34
6. Barragán, O., Grziwa, S., Gandolfi, D., et al., *EPIC 211391664b: A  $32-M_{\oplus}$  Neptune-sized planet in a 10-day orbit transiting an F8 star*, 2016, AJ 152, 193
7. dos Santos, L.A., Meléndez, J., do Nascimento, J.-D., Jr., **Bedell, M.**, et al., *The Solar Twin Planet Search IV. The Sun as a typical rotator and evidence for a new rotational braking law for Sun-like stars*, 2016, A&A 592, A156
8. Tucci Maia, M., Ramírez, I., Meléndez, J., **Bedell, M.**, et al., *The Solar Twin Planet Search III. The [Y/Mg] clock: estimating stellar ages of solar type stars*, 2016, A&A 590, A32
9. **Bedell, M.**, Meléndez, J., Bean, J.L., et al., *The Solar Twin Planet Search II. A Jupiter twin around a solar twin*, 2015, A&A 581, A34
10. **Bedell, M.**, Meléndez, J., Bean, J.L., et al., *Stellar Chemical Abundances: In Pursuit of the Highest Achievable Precision*, 2014, ApJ 795, 23
11. Ramírez, I., Meléndez, J., Bean, J.L., et al., *The Solar Twin Planet Search I. Fundamental parameters of the stellar sample*, 2014, A&A 572, A48
12. Meléndez, J., Ramírez, I., Karakas, A., et al., *18 Sco: a solar twin rich in refractory and neutron-capture elements. Implications for chemical tagging*, 2014, ApJ 791, 14
13. Monroe, T., Meléndez, J., Ramírez, I., et al., *High Precision Abundances of the Old Solar Twin HIP 102152: Insights on Li Depletion from the Oldest Sun*, 2013, ApJ 773, L32
14. **Bedell, M.**, Villaume, A, et al., *Monitoring  $H\alpha$  Emission and Continuum of UXORs: RR Tauri*, 2011, AJ 142, 164

### INVITED REVIEWS

1. Meléndez, J., Bean, J. L., **Bedell, M.**, et al., 2015, The Messenger, 161, 28