

Curriculum Vitae (October 2021)

Jacob L. Bean

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POSITIONS Professor (since October 2021)
Department of Astronomy & Astrophysics, University of Chicago
Associate Professor, University of Chicago, 2017 – 2021
Assistant Professor, University of Chicago, 2011 – 2016
Postdoctoral Researcher, Harvard-Smithsonian CfA, 2010 – 2011
Postdoctoral Researcher, Institute for Astrophysics Göttingen (Germany), 2007 – 2010

EDUCATION Astronomy Ph.D., University of Texas at Austin, 2007
Dissertation Title: *M Dwarf Metallicities and Exoplanets*
Advisors: Dr. G. Fritz Benedict & Prof. Christopher Sneden
Physics B.S. with Highest Honors, Georgia Institute of Technology, 2002

RESEARCH INTERESTS Discovery and characterization of extrasolar planets
Development of new observational methods and instrumentation
Stellar astrophysics of Sun-like and low-mass stars

AWARDS & HONORS Packard Fellowship for Science and Engineering 2014 – 2019
Sloan Research Fellowship 2012 – 2014
Sagan Fellowship 2010 – 2011
Marie Curie Fellowship 2009 – 2010

MAJOR RESEARCH PROJECTS *Exoplanet atmosphere studies*

- *James Webb Space Telescope* Cycle 1 programs: Co-PI on the Transiting Exoplanet Community Early Release Science Program, Co-I on the Interdisciplinary Scientist GTO program, PI and Co-I on 6 GO programs (292 hours total)
- PI on *Hubble Space Telescope*, *Spitzer Space Telescope*, and ground-based telescope (Keck, Gemini, VLT, etc.) programs
- Collaborator and Founding Chair of the Atmosphere Characterization Working Group for the *Transiting Exoplanet Survey Satellite (TESS)* mission
- Science Team Lead for *CASE*, a NASA Mission of Opportunity to contribute to the ESA *Ariel* mission, in Phase B

Radial velocity planet searches

- PI of MAROON-X program, 675 hours allocated since 2020
- Co-I of 97 night HARPS program, 2011 – 2016
- PI of 33 night VLT program using new ammonia gas cell, 2009 – 2011

Instrument development

- Co-I of G-CLEF: an ultra high-precision radial velocity spectrograph, selected for first light on the GMT, under development for deployment at Magellan
- PI of MAROON-X: a radial velocity spectrograph optimized for M dwarfs, commissioned on Gemini North in 2019
- PI of LDSS-3C: new detector system for the Magellan LDSS-3 instrument, commissioned 2014

ADVISING

Graduate Students (primary advisor)

- Madison Brady, A&A Ph.D. anticipated 2025, NSF Graduate Fellowship recipient
- Adina Feinstein, A&A Ph.D. anticipated 2023, NSF Graduate Fellowship recipient
- Megan Mansfield, Geophysics Ph.D. 2021, NASA FINESST recipient, Harper Dissertation Fellow, now a Sagan Fellow at U. Arizona
- Emily Gilbert, A&A pre-candidacy, 2016 – 2018
- Megan Bedell, A&A Ph.D. 2017, NSF Graduate Fellowship recipient, Harper Dissertation Fellow, now an Associate Research Scientist at the Center for Computational Astrophysics
- Laura Kreidberg, A&A Ph.D. 2016, NSF Graduate Fellowship recipient, Harper Dissertation Fellow, IAU Best Ph.D. Prize, Annie Jump Cannon Award, now a Director at the Max Planck Institute for Astronomy (Germany)

Undergraduates

- Complete list (12 total): Molly Simon, Hannah Diamond-Lowe, Katrina Miller, Adam Sutherland (thesis), Lily Zhao, Caleb Harada, Zachary Robertson, Dalton Goree, Cho Yin Kong, Nicholas Earley, Yingyi Liang, Jorge Sanchez
- Eight former undergrads have gone on to grad school, three have received the Ph.D.
- Four former undergrads are NSF Graduate Fellowship recipients

Thesis Committee

- Huanzhou Yang, Geophysics Ph.D. anticipated 2024
- Andrew Neil, A&A Ph.D. 2021
- Jade Checlair, Geophysics Ph.D. 2021
- Sean Mills, A&A Ph.D. 2017
- Daniel Koll, Geophysics Ph.D. 2016

External Referee

- Björn Benneke, MIT Ph.D. 2013

SUPERVISION

David Kasper, postdoc, since 2019

Ben Montet, Sagan Fellow, 2016 – 2019, now a Senior Lecturer at the University of New South Wales (Australia)

Julian Stürmer, postdoc, 2015 – 2019, now a staff scientist at the Heidelberg Observatory (Germany)

Diana Dragomir, postdoc, 2015 – 2016, went on to a Hubble Fellowship at MIT, now an Assistant Professor at the University of New Mexico

Kevin Stevenson, postdoc / Sagan Fellow, 2012 – 2016, now a staff scientist at the JHU Applied Physics Laboratory

Andreas Seifahrt, research scientist, since 2011

TEACHING

PHSC 11900 (undergrad non-science majors) *Stellar Astronomy & Astrophysics*: 2014, 2015

PHSC Labs (undergrad non-science majors): 2016 (1 quarter), 2017 – 2018 (3 quarters)

PHSC 12720* (undergrad non-science majors and astronomy minor) *Exoplanets*: 2016, 2017, 2018 (Paris), 2020

PHSC 18000* (undergrad non-science majors and astronomy minor) *The Search for Extraterrestrial Life*: 2018 – 2021 (4 times)

ASTR 28200/25800* (undergrad majors) *Astrophysics of Exoplanets*: 2013, 2021 (co-taught)

ASTR 30900 (graduate) *Research Project Seminar*: 2012

ASTR 35800* (graduate) *Astrophysics of Exoplanets*: 2013 (co-taught), 2021 (co-taught)

ASTR 49900 (graduate) *Graduate Research Seminar*: 2017, 2019

* denotes new classes that I created

SERVICE

External

NASA ExoPAG Executive Committee: since 2020

Keck Planet Finder Community Cadence Committee: 2021

NASA LUVOIR Science and Technology Definition Team: 2016 – 2019

National Academies of Sciences, Engineering, & Medicine Exoplanet Science Strategy Committee: 2018

Invited speaker for the 114th Congress Committee on Science, Space, and Technology hearing “Astrobiology and the Search for Life Beyond Earth in the Next Decade”: 2015

Gemini Observatory Science and Technology Advisory Committee: 2014 – 2016

NASA Astrophysics 30 Year Roadmap Committee: 2013

Internal

A&A Magellan Time Allocation Committee: 2013 – 2014 (member), since 2014 (chair)

U. Chicago AURA Representative: since 2018

A&A Prize Postdoc Fellowship committee: 2021 – 2022

A&A Faculty Search Committee: 2015 – 2016, 2019 – 2020

A&A Honorary Degree Lead: 2018 – 2019

A&A Colloquium Committee: 2018 – 2019

A&A Brinson Lectureship Committee: 2013 – 2014 (chair), 2017 – 2018, 2018 – 2019

PSD Engineering Center Committee: 2014 – 2017

A&A Strategic Planning: 2017 – 2018

A&A Giant Magellan Telescope Committee: 2013 – 2017