TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B post-doc fellowship

Brianna Zawadzki

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Zawadzki
Name	Brianna
Date of birth	05/06/1996

PRESENT OCCUPATION

Appointment	Structure
PhD Candidate	Department of Astronomy & Astrophysics, The Pennsylvania State University

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	B.S. in Physics	Lycoming College (Williamsport, PA, USA)	2018
Specialization			
PhD	Astronomy/Astrophysics	The Pennsylvania State University (University Park, PA, USA)	2023 (expected)
Master	Astronomy/Astrophysics	The Pennsylvania State University (University Park, PA, USA)	2020
Degree of European specialization			
Other			

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
N/A	N/A	N/A

FOREIGN LANGUAGES

Languages	level of knowledge
English	Native
German	B1
Italian	A1

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2022	Science Achievement Graduate Fellowship Nominee: Nominated by the Pennsylvania State University for contributions to the advancement of women in sciences.
2022	Center For Exoplanets and Habitable Worlds Grant: Awarded to fund travel and participation at Exoplanets IV Conference.
2020	AAS International Travel Grant: Awarded by the American Astronomical Society to students presenting at international science meetings.
2019	Center For Exoplanets and Habitable Worlds Grant: Awarded to fund travel and participation at TESS Science Conference.
2018	University Graduate Fellowship: Awarded by the Eberly College of Science before the first year of graduate study.
2018	The Charles J. Kocian Award: Awarded to the graduating senior at Lycoming College with the highest GPA in the class.
2018	The Edward J. Gray Prize: Awarded to the individuals with the highest or second highest GPA in the senior class at Lycoming College.
2018	Φυσίκα Award in Astronomy & Physics: Given to the graduating senior with the highest departmental GPA at Lycoming College.
2014-2018	Lycoming College Dean's List: Awarded for maintaining a GPA of at least 3.5.
2015	M.B. Rich Endowed Prize: Awarded to Lycoming College first year students who complete their first year with a 4.0 GPA.
2015	Fundamentals of Physics Award: Awarded to the student who earns the highest grades in the introductory physics sequence at Lycoming College.
2015	Principles of Astronomy Award: Awarded to the student who earns the highest grade in introductory astronomy at Lycoming College.

TRAINING OR RESEARCH ACTIVITY

My research is focused on planet formation and protoplanetary disk science. I have experience answering research questions in the field of planet formation through writing, running, and analyzing N-body simulations. I also have skills related to analyzing protoplanetary disk and exoplanet data, including (but not limited to) data from ALMA and *Kepler*. My research has a computational focus, and I have developed an extensive set of skills related to high performance computing, machine learning, and software development that complement my additional skills in analyzing observations.

PROJECT ACTIVITY

Year	Project
2022-2023	A high resolution analysis of circumbinary protoplanetary disk AK Sco
2021-2023	Regularized maximum likelihood imaging for ALMA
2021-2022	Migration traps as the root cause of the Kepler dichotomy
2019-2021	Rapid formation of super-Earths around low-mass stars
2018	Detecting nonlinearity in binary star data
2017-2018	Using missing ordinal patterns to detect nonlinearity in time series data
2017	The connection between solar coronal cavities and solar filaments

PATENTS (here you can put the driver's licence)

Patent
USA driver's license, issued by the state of Pennsylvania, #33731430

CONGRESSES AND SEMINARS

Date	Title	Place
Jan 12, 2023	RML Imaging Techniques for ALMA Protoplanetary Disk Observations	VLTI and ALMA Synthesis Imaging Workshop, Garching, Germany
Oct 12, 2022	Regularized Maximum Likelihood Techniques for ALMA	Institute for Computational and Data Sciences Symposium, State College, PA, USA
May 31, 2022	Regularized Maximum Likelihood Techniques for ALMA	APEx Exocoffee, Heidelberg, Germany
May 3, 2022	Migration Traps as the Root Cause of the Kepler Dichotomy	Exoplanets IV Conference, Las Vegas, NV
Feb 25, 2022	Regularized Maximum Likelihood Techniques for ALMA	Submillimeter Array (SMA) Science Seminar, virtual/online seminar
Oct 6, 2021	Regularized Maximum Likelihood Techniques for ALMA	North American ALMA Science Center, Charlottesville, VA, USA
May 26,	Regularized Maximum Likelihood Techniques	Emerging Researchers in Exoplanet Science

2021	for ALMA Spectral Line Imaging	Conference, virtual/online conference
Jul 29, 2020	Rapid Formation of Super-Earths Around Low-Mass Stars	Exoplanets III Conference, virtual/online conference
Feb 11, 2019	Rapid Formation of Super-Earths Around Low-Mass Stars	The Pennsylvania State University Astronomy & Astrophysics Lunch Seminar, University Park, PA, USA
Aug 9, 2017	The Connection Between Solar Coronal Cavities and Solar Filaments	Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA

PUBLICATIONS

Books
N/A

Articles in journals
Regularized Maximum Likelihood Techniques for ALMA Observations, **Brianna Zawadzki**, Ian Czekala, Ryan A. Loomis, Tyler Quinn, Hannah Grzybowski, Robert Frazier, and Yina Jian 2023, *submitted to AAS Journals*.
An extreme test case for planet formation: a close-in Neptune orbiting an ultracool star, Guðmundur Stefánsson et al. including **Brianna Zawadzki** 2023, *submitted to Science Journals*.
Migration traps as the root cause of the Kepler dichotomy, **Brianna Zawadzki**, Daniel Carrera, and Eric Ford 2022, ApJ, 937, 53.
Rapid Formation of Super-Earths Around Low-Mass Stars, **Brianna Zawadzki**, Daniel Carrera, and Eric Ford 2021, MNRAS, 503, 1.
Using missing ordinal patterns to detect nonlinearity in time series data, Christopher W. Kulp, Luciano Zunino, Thomas Osborne, and **Brianna Zawadzki** 2017, Physical Review E 96, 022218.

Congress proceedings
Regularized Maximum Likelihood Techniques for ALMA Protoplanetary Disk Imaging, AASTCS9, Exoplanets 4, id. 102.200. Bulletin of the American Astronomical Society, Vol. 54, No. 5 e-id 2022n5i102p200, Las Vegas, NV, May 2022
Rapid Formation of Super-Earths Around Low-Mass Stars, 14th Europlanet Science Congress 2020, held virtually, 21 September 2020 - 9 October, 2020. Online at https://www.epsc2020.eu/, id. EPSC2020-155, September 2020
Rapid Formation of Super-Earths Around Low-Mass Stars, American Astronomical Society meeting #236, id. 327.02. Bulletin of the American Astronomical Society, Vol. 52, No. 3, June 2020
Rapid Formation of Super-Earths Around Low-Mass Stars, Poster, TESS Science Conference, Cambridge,

MA, USA, 2019
The Connection Between Solar Coronal Cavities and Solar Filaments, American Geophysical Union, Fall Meeting 2017, abstract #SH13A-2467, New Orleans, LA, USA, 2017

OTHER INFORMATION

Professional References	Position	Contact Email
Dr. Ian Czekala	Assistant Professor, Penn State University	iczekala@psu.edu
Dr. Eric Ford	Professor, Penn State University	eford@psu.edu
Dr. Daniel Carrera	Postdoctoral Research Associate, Iowa State University	carrera@iastate.edu

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: State College, Pennsylvania, USA, Jan 11, 2023

SIGNATURE

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