

Kaila J. M. Nathaniel

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KailaNathaniel.com

EDUCATION

Argelander Institute for Astronomy, Universität Bonn, Bonn, Germany

Master of Science, Astrophysics

Advised by Norbert Langer

2019-2022 (expected)

Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA

Honors Bachelor of Science, Physics; Minors: Astronomy, Math

2015–2019

PUBLICATIONS

Riley, ..., Kaila Nathaniel, et al. (5th/8 authors, submitted 2020). "Chemically Homogeneous Evolution: A rapid population synthesis approach" (accepted)

Abbott, B. P. et al. (~3500 authors, 2017). "Multi-messenger Observations of a Binary Neutron Star Merger" *The Astrophysical Journal Letters*, 848(2), L12. DOI: 10.3847/2041-8213/AA91C9

Callister et al. (12 authors). "Continued radio observations of NGC 4993 after GW170817" *In prep.*

RESEARCH INTERESTS

Evolution of massive, rapidly rotating stars; binary compact objects; data science.

AWARDS AND FELLOWSHIPS

- **Honors Fellowship**, Bonn Cologne Graduate School of Physics and Astronomy, 2019-2021
- **LIGO Summer Undergraduate Research Fellowship**, Division of Physics, Mathematics & Astronomy, Caltech, 2018
- **International REU**, School of Physics and Astronomy, University of Birmingham, 2017
- **Travel Scholarship**, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science, 2018
- **Sigma Pi Sigma Physics Honor Society**, Virginia Tech, inducted 2018
- **Astronaut Scholarship Nominee**, Virginia Tech, 2018
- **Dept. of Physics Scholarship**, Webster and Sara Schoene Richardson Memorial, Virginia Tech, 2018-2019
- **College of Science Scholarship**, Davy-Faraday, Virginia Tech, 2017-2018

TEACHING EXPERIENCE

Argelander Institute for Astronomy, Uni Bonn

Teaching Assistant, "Stars and Stellar Evolution", Winter 2020/2021

Curie and Da Vinci Living Learning Community, Virginia Tech

Supervising Mentor, Fall 2017 and Spring 2018

Sophomore Mentor, Fall 2016 and Spring 2017

Physics Department, Virginia Tech

Learning Assistant, "Foundational Physics I", Fall 2017

Virginia Space Coast Scholars and Virginia Earth Systems Scholars Summer Academies, Virginia Space Grant Consortium

Summer Academy Intern, Summer 2015 and Summer 2016

PRESENTATIONS

Nathaniel, K., Kamai, B., Adhikari, R. X. (2018, October). *Could a seismic cloak help LIGO?*. Poster session presented at SACNAS: The National Diversity in STEM Conference, San Antonio, TX.

Nathaniel, K., Kamai, B., Adhikari, R. X. (2018, August). *Seismic cloaking for LIGO*. Research presentation at the Caltech LIGO SURF closing meeting, Pasadena, CA.

Nathaniel, K., Mandel, I., Neijssel C., (2017, August). *Chemically homogeneous evolution*. Research presentation at the IREU closing meeting, Hannover, Germany.

OUTREACH, LEADERSHIP, E&I

- **Undergraduate Representative**, Physics Undergraduate Committee, Fall 2018 to Spring 2019—Virginia Tech

CAMPUS INVOLVEMENT

Collegiate Times Newspaper—Photography Section	August 2016–May 2019
Head Photo Editor , October 2017–May 2019	
Staff Photographer , August 2016–May 2017	
Curie and Da Vinci Living Learning Community (CurVinci LLC), Slush Rush Speaker, October 2018	
Spoke to current CurVinci students about the physics department and life as a physics major	
Silhouette Literary Magazine, Featured Photographer	November 2017
Visuals of Life Photo Exhibition, Featured Photographer	November 2017
HokiePRIDE of Virginia Tech – Panelist , August 2015–May 2017	
Delta VT High Powered Rocketry Team , Safety Officer	August 2015–May 2016

LANGUAGES

English (native), German (B1)