

AKSHAY SURESH

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EDUCATION

Ph. D. (Astronomy), Cornell University *Jan 2020 – May 2022 (expected)*
MS (Astronomy), Cornell University *Aug 2017 – Dec 2019*
BS–MS Dual Degree with Distinction, *Aug 2012 – May 2017*
Indian Institute of Science Education and Research (IISER), Pune

RESEARCH EXPERIENCE

Graduate Research Assistant *Aug 2017 – Present*
Cornell Center for Astrophysics and Planetary Science
Advisors: James M. Cordes and Shami Chatterjee
Ph.D. thesis: *Radio Transient Searches from Millisecond to Hour-long Timescales*

Masters Thesis Research *May 2016 – Apr 2017*
National Centre for Radio Astrophysics (NCRA–TIFR), Pune
Advisor: Divya Oberoi
[MS thesis](#): *Investigation of Small Scale Weak Solar Emissions at Low Radio Frequencies*

Undergraduate Summer Internships
DAAD–WISE internship at Max Planck Institute for Extraterrestrial Physics *May – Jul 2015*
NIUS–Physics fellow at NCRA–TIFR, Pune *May – Jul 2014*

AWARDS AND FELLOWSHIPS

Cranson and Edna B. Shelley Outstanding Teaching Assistant Award (Cornell Univ.) *2019*
Institute Gold Medal (IISER Pune) *2017*
Outstanding Student Paper Award in Space Physics and Aeronomy (AGU Fall Meeting) *2016*
DAAD–WISE Summer Scholarship *2015*
National Initiative on Undergraduate Sciences – Physics Fellowship *2013*
Kendriya Vaigyanik Protsahan Yojana Fellowship *2012 – 2017*

TEACHING EXPERIENCE

Head Teaching Assistant (Cornell University)
ASTRO 1101: From New Worlds to Black Holes *Fall 2018*

Teaching Assistant (Cornell University)
ASTRO 1102: Our Solar System *Spring 2018*
ASTRO 1101: From New Worlds to Black Holes *Fall 2017*

REFEREED JOURNAL PUBLICATIONS

2. Suresh, A., & Cordes, J. M., “*Induced Polarization from Birefringent Pulse Splitting in Magnetoionic Media*”, 2019 *ApJ* 870 29.
1. Suresh, A., Sharma, R., Oberoi, D., et al. (39 authors), “*Wavelet-based Characterization of Small-scale Solar Emission Features at Low Radio Frequencies*”, 2017 *ApJ* 843 19.

ACADEMIC PRESENTATIONS

Contributed Conference Talks

NANOGrav Fall Meeting 2019
The Breakthrough Listen Galactic Center Survey using the Green Bank Telescope

Institute Seminars

NCRA-TIFR Seminar 2019
Birefringent Pulse Splitting in Magnetoionic Media

UC Berkeley SETI Seminar 2018
Propagation-induced Effects on Fast Radio Bursts and Extraterrestrial Intelligence Signals

Posters

35th Meeting of the Astronomical Society of India 2017
Exploring the Spatial Distribution of Weak Non-thermal Energy Releases on the Solar Surface

American Geophysical Union Fall Meeting 2016
Wavelet Based Characterization of Low Radio Frequency Solar Emissions

34th Meeting of the Astronomical Society of India 2016
Statistical analysis of weak solar bursts seen with the Murchison Widefield Array

APPROVED TELESCOPE ALLOCATIONS (AS PI)

Very Large Array:

VLA/19A-283: Precise Localization of Flares from the ϵ Eri Exoplanetary System (12 hrs.)

Green Bank Telescope:

GBT/19A-407: A FLAG Survey of Virgo and Coma Clusters for Fast Radio Bursts (64 hrs.)

Arecibo telescope:

P3315: L-band Survey of M87 for Fast Radio Bursts (12 hrs.)

MENTORING EXPERIENCE

Supervised Ryan J. Hill & Ethan S. Bair (both Cornell undergrads) during Fall 2019 on “Radio Frequency Interference Classification using Convolutional Neural Networks.”

MEMBER AFFILIATIONS AND COLLABORATIONS

Associate member, NANOGrav collaboration	<i>2019 – Present</i>
Graduate student member, American Astronomical Society	<i>2019 – Present</i>
Member, American Association for the Advancement of Science	<i>2019 – Present</i>
Associate member, Murchison Widefield Array collaboration	<i>2016 – 2018</i>
Student member, Astronomical Society of India	<i>2016 – 2017</i>

TECHNICAL SKILLS

Computer Languages	Python, C, C++, L ^A T _E X, HTML
Astronomy Software	PRESTO, CASA, DS9

PROFESSIONAL SERVICE

Journal Referee	
Monthly Notices of the Royal Astronomical Society	<i>Aug 2020 - Present</i>

OUTREACH

“Ask an Astronomer” team member at Cornell University	<i>Aug 2017 - Present</i>
<i>Answer astronomy-related questions submitted by the public on an online forum.</i>	
4H Career Explorations for high school students	<i>2018</i>
<i>Conducted lectures and demonstrations on blackbody radiation and spectral lines.</i>	
Museum in the Dark	<i>2018</i>
<i>Organized stargazing sessions as part of a Halloween-themed night-time event at a local museum.</i>	