# Curriculum Vitae

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#### Personal Information

Full Name: Arvind Balasubramanian

Date of Birth: 06 August 1995

Nationality: Indian

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### Education

▶ 2018 - Summer 2022 (tentative) : PhD in Physics at Texas Tech University

Title: Radio exploration of the transient sky: Binary mergers and peculiar core-collapse

supernovae

Advisor: Dr. Alessandra Corsi

▶ 2013 - 2018 : BS-MS Dual Degree in Science at Indian Institute of Science Education and Research, Pune

Masters thesis: Mass Modeling and search for transients with AstroSat CZTI

Advisor: Dr. Varun Bhalerao, Indian Institute of Technology, Bombay

**Summary:** The project focuses on the search for and study of astrophysical transients with the Cadmium Zinc Telluride Imager (CZTI) onboard the AstroSat. The all-sky sensitivity of CZTI allows us to study various transients like Gamma Ray Bursts (GRB's) and gravitational wave counterparts.

## Scholarships/Grants —

- ► Fall 2021 Spring 2022 : Bucy Scholarship in Applied Physics, Dept. of Physics and Astronomy, TTU
- ► Fall 2020 Spring 2021 : Peter Seibt Memorial Scholarship, Dept. of Physics and Astronomy, TTU
- ▶ 2013 2018 : DST Inspire Scholarship, Government of India

### Positions Held -

- ▶ Fall 2019 present : Research Assistant at Texas Tech University
- ▶ Fall 2018 present : Tutor at Texas Tech University, Department of Physics and Astronomy

- ▶ Fall 2018 Spring 2019 : Teaching Assistant at Texas Tech University
- ▶ 2014 2016: Student Coordinator of the Astronomy Club, Aakashganga, Indian Institute of Science Education and Research, Pune. (Website)

#### Publications and Contributions

#### Refereed Articles

▶ Continued Radio Observations of GW170817 3.5 yr Post-merger

Balasubramanian, A., Corsi, A., Mooley, K. P., Brightman, M., Hallinan, G., Hotokezaka, K., Kaplan, D. L., Lazzati, D., & Murphy, E. J.; 2021, The Astrophysical Journal, 914, L20, ADS link.

▶ Radio Observations of SN2004dk with VLITE Confirm Late-time Rebrightening

Balasubramanian, A., Corsi, A., Polisensky, E., Clarke, T. E., Kassim, N. E.; 2021, The Astrophysical Journal, 923, 32, ADS link

▶ The JAGWAR Prowls LIGO/Virgo O3 Paper I: Radio Search of a Possible Multimessenger Counterpart of the Binary Black Hole Merger Candidate S191216ap

Bhakta, D., Mooley, K. P., Corsi, A., Balasubramanian, A., Dobie, D., Frail, D. A., Hallinan, G., Kaplan, D. L., Myers, S. T., & Singer, L. P.; 2021, The Astrophysical Journal, 911, 77, ADS link.

▶ The Panchromatic Afterglow of GW170817: The Full Uniform Data Set, Modeling, Comparison with Previous Results, and Implications

Makhathini, S., et al; 2021, The Astrophysical Journal, 922, 154, ADS link

► Search for Radio Remnants of Nearby Off-axis Gamma-Ray Bursts in a Sample of Swift/BAT Events

Grandorf, C., McCarty, J., Rajkumar, P., Harbin, H., Lee, K. H., Corsi, A., Bartos, I., Márka, Z., **Balasubramanian, A**., & Márka, S.; 2021, The Astrophysical Journal, 908, 63, ADS link.

▶ The AstroSat mass model: Imaging and flux studies of off-axis sources with CZTI

Mate, S., Chattopadhyay, T., Bhalerao, V., Aarthy, E., **Balasubramanian, A.**, Bhattacharya, D., Gupta, S., Kutty, K., Mithun, N. P. S., Palit, S., Rao, A. R., Saraogi, D., Vadawale, S., & Vibhute, A.; 2021, Journal of Astrophysics and Astronomy, 42, 93, ADS link.

▶ Prompt X-Ray Emission from Fast Radio Bursts—Upper Limits with AstroSat

Anumarlapudi, A., Bhalerao, V., Tendulkar, S. P., & Balasubramanian, A.; 2020, The Astrophysical Journal, 888, 40, ADS link.

▶ Illuminating gravitational waves: A concordant picture of photons from a neutron star merger

Kasliwal, M. M., et al.; 2017, Science, 358, 1559, ADS link.

▶ Multi-messenger Observations of a Binary Neutron Star Merger

Abbott B., et al; 2017, The Astrophysical Journal, 848, L12, ADS link.

#### Non-refereed Articles

- ► LIGO/Virgo S191216ap: VLA/JAGWAR radio monitoring of the 1-sigma HAWC region Mooley, K., Myers, S., Frail, D., Corsi, A., Balasubramanian, A., Bhakta, D., Hallinan, G., Kulkarni, S., & Jagwar Team; 2019, GRB Coordinates Network, 26531, 1, ADS link.
- ► LIGO/Virgo S190814bv: VLA/JAGWAR monitoring of the 50% containment region
  Mooley, K., Myers, S., Frail, D., Hallinan, G., Kulkarni, S., Corsi, A., Balasubramanian, A.,
  Bhakta, D., & Jagwar Team; 2019, GRB Coordinates Network, 25690, 1, ADS link.
- ▶ LIGO/Virgo G298936: Astrosat CZTI upper limits

Balasubramanian, A., Bhalerao, V., Bhattacharya, D., Bose, S., Dewangan, G. C., Misra, R., Mitra, S., Rao, A. R., Souradeep, T., Vadawale, S., & Astrosat CZTI Team; 2017, GRB Coordinates Network, 21714, 1, ADS link.

▶ LIGO/Virgo G299232: Astrosat CZTI upper limits

Balasubramanian, A., Bhalerao, V., Bhattacharya, D., Bose, S., Dewangan, G. C., Misra, R., Mitra, S., Rao, A. R., Souradeep, T., Vadawale, S., & Astrosat CZTI Team; 2017, GRB Coordinates Network, 21712, 1, ADS link.

▶ LIGO/Virgo G298048: Astrosat CZTI upper limits

Balasubramanian, A., Mate, S., Bhalerao, V., Bhattacharya, D., Vibhute, A., Bose, S., Dewangan, G. C., Misra, R., Mitra, S., Rao, A. R., Souradeep, T., Vadawale, S., & Astrosat CZTI Team; 2017, GRB Coordinates Network, 21514, 1, ADS link.

### Computing Skills -

Scientific computing and data analysis in decreasing order of experience: Python, Fortran/C++, IDL

### Conferences/Meetings -

▶ Title: The Past, Present and Future of VLA: Celebrating 40 years (virtual)

**Duration:** August 4 - 7, 2021

Summary: Presented a short talk (15 min)

► Title: Quarks to Cosmos with AI (virtual)

**Duration**: July 12 - 16, 2021

► Title: APS April 2021 Meeting

**Duration**: April 17 - 20, 2021

**Summary:** Presented a short talk (10 min) and a poster

▶ Title: 237th meeting of the American Astronomical Society (virtual)

**Duration:** January 10 - 15, 2021

▶ Title: The 36th Annual New Mexico Symposium

**Duration:** 13 November 2020

Summary: Presented a poster talk (5 min)

▶ Title: 2020 Joint Fall Meeting of the Texas Sections of APS, AAPT and Zone 13 of the SPS (virtual)

**Duration:** November 12 - 14, 2020

Summary: Presented a short talk (10 min)

▶ Title: GROWTH Astronomy School 2020, (virtual)

**Duration**: August 17 - 21, 2020

 ${\bf Summary}$  : Participated both as attendee and teaching assistant

▶ Title: GROWTH Astronomy School 2019, San Diego State University

**Duration:** August 05 - 07, 2019

▶ Title: 2019 Joint Fall Meeting of the Texas Sections of APS, AAPT and Zone 13 of the SPS, Texas

Tech University

**Duration :** October 25 - 26, 2019

▶ Title : SciPy India Conference

**Duration**: November 29 - 30, 2017

Venue: Indian Institute of Technology, Bombay, India

▶ Title: Workshop on Gamma-ray Bursts: Prompt to Afterglow

**Duration**: July 04 - 07, 2017

Venue: National Centre for Radio Astrophysics (NCRA-TIFR), Pune, India

## Science Camps -

**2013**: Selected and attended Vijyoshi National Science Camp at the Indian Institute of Science, Bangalore, organized by KVPY (Kishore Vaigyanik Protsahan Yojana) under the Department of Science and Technology of the Government of India.