Dinil Bose Palakkatharappil

Curriculum Vitae

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dinilbose@oca.eu
DOB: 14-08-1993
Nationality: Indian

Education

2019 – **PhD in Astronomy**, *Observatory De La Cote D'azur*, Universite Cote d'Azur, France.
PhD Thesis: Precise ages of stars in the era of large space missions Gaia and Plato and its link to our Milky Way

2014 – 2016 **M.Sc. in Physics**, *Department of Physics*, Mahatma Gandhi University, India.
Master's Thesis: Monitoring of spatial and temporal variation of GPS signal caused by ionospheric irregularities over Indian low-latitude

2011 – 2014 **B.Sc. in Physics**, *Department of Physics*, Mahatma Gandhi University, India.
Bachelor's Thesis: Re-estimation of open star cluster parameters using 2MASS photometry

Experience

2020 **Remote VEGA Observations**, *Observatory De La Cote D'azur, Calern, France*.

2017–2019 **Junior Project Fellow**, *Department of Astronomy & Astrophysics*, Indian Institute of Space Science and Technology, India .
Project: Radio Continuum Mapping of Ionized emission associated with infrared (IR) bubbles

2018 **Resource person**, *IIST Astronomy & Astrophysics School organized by Indian Institute of Space Science and Technology*.

2017 **Radio Observations**, *Giant Metrewave Radio Telescope, Pune, India* .

2017 **Resource person**, *Astronomy Olympiad Nurture Camp organized by Indian Institute of Space Science and Technology.*.

Programming Endeavors

- **tessipack**, An interactive package to analyse TESS FFI images and extract light curves.
  `https://github.com/dinilbose/tessipack`
- **ezbasti**, A python package to interact with BASTI isochrones..
  `https://github.com/dinilbose/tessipack`
- **imalign**, CASA based task developed for finding shift between radio images based on cross-correlation technique.
- Developed perl script for multi-epoch study of star forming region. (Collaborative Project of Dr. Anandmayee Tej and Dr. Watson Varricatt, Instrumental scientist WFCAM, UKIRT, Hawai)
- **nav analyser**, A MATLAB based program for extraction, arrangement and processing of GPS, GLONASS, SBAS, QZSS and BEIDOU satellite data from the ISMR files generated by the GNSS receiver at Changanassery, Kerala, India.
- **ionopy**, A python package for automatic extraction and calculation of TEC from rinex files of IGS station.
  https://github.com/dinilbose/ionopy

Conferences and Workshops Attended

- Journees Doctorales de la Physique Nicoise 2021, Agay, France
- Semaine de l'astrophysique francaise 2021
- Journee scientifique, Observatory Cote d'Azur, Nice, France
- MOBSTER-1 Virtual Astronomy Conference
- National Seminar on Experimental Techniques in Astronomy & Space science at NSS college Changanacherry, December, 2015.
- National Seminar on Optics and optoelectronic Devices at Catholicate College Pathanamthitta, February, 2015.

Conference Proceedings

- **D. B. Palakkatharappil**, and O. L. Creevey,SF2A, 2021, pp.193-194, *tessipack: An interactive python-based tool to find stellar variability from TESS FFIs.*
- Sreekumar Haridas, K. Unnikrishnan, R. K Choudhary, **Dinil Bose P**, and P.B. Rao, AIP Conference Proceedings 2379, 020005 (2021), *A Study on Equatorial Plasma Bubbles over Indian Sub-Continent Using Various Satellite Constellations and Techniques*
- Soumya, K. Unnikrishnan, Sreekumar Haridas, **Dinil Bose** and R. K Choudhary, AIP Conference Proceedings 2379, 020005 (2021), *A Study on Seasonal and Latitudinal Variations of Fresnel Frequency and Drift Velocity of Amplitude Scintillation over Indian Sector*
- K. Unnikrishnan, Sreekumar Haridas, V.M Ashna, R.K.Choudhary, **Dinil Bose P**, Indian Journal Of Scientific Research, 2018, ISSN: 2250-0138, *Neural network model for the prediction of TEC variabilities over indian equatorial sector.*
- K. Unnikrishnan, Sreekumar Haridas, V.M Ashna, **Dinil Bose P**, R.K.Choudhary, 3rd URSI Regional Conference on Radio Science, 1-4 March, 2017, Tirupati, India, *Modification of ionospheric irregularities during geomagnetic disturbances over an equatorial station Changanacherry-case studies.*
- Sreekumar Haridas, K. Unnikrishnan, R. K. Choudhary, **Dinil Bose P**, 27th Swadeshi Science Congress, 7 - 9 November, 2017 Kollam, India, *Comparison of the two techniques (A) Single station-multisatellite and (B) Multistation- Single satellite to study the evolution of equatorial plasma bubbles.*

Software Experience

Codes	MESA, GYRE
Analysis	AIPS, CASA, STARLINK, HIPE, IRAF, CLUMPFIND, FELLWALKER, MONTAGE, Zemax
Imaging	GILDAS, DS9, APLPY, GAIA
Programming languages	Python, Matlab, Bash, C, C++, Perl, Mathematica, Fortran(preliminary)
Others	Latex, Git