

Manish Khanal

Graduate Student
Department of Physics and Astronomy
University of Utah, Salt Lake City, Utah, USA
Contact: +1 385 371 9075

Email: u1421460@uemail.utah.edu
<https://www.researchgate.net/profile/Manish-Khanal-3>

EDUCATION

- Aug 2022 – Present** PhD in Physics
University of Utah, Salt Lake City, Utah
- Feb 2015 – Oct 2019** Bachelor in Physics
Amrit Campus, Tribhuvan University, Kathmandu, Nepal

RESEARCH INTEREST

- Renewable Energy
- Neutrino Astrophysics
- Data Analysis

TEACHING EXPERIENCE

- Aug 2022 – May 2023** Teaching Assistant for PHYS 2020 course under Dr. Kelby Hahn
Leading the discussion Section, Grading homework and exams
- Jan 2020 – Jun 2022** Pragma Secondary School, Kathmandu, Nepal
Teacher (Mathematics and Science) for Secondary School Level

PUBLICATIONS

- Gautam, S. P., Silwal, A., Basyal, A., Chaudhary, K., **Khanal, M.**, Ale, B., Adhikari, B., Poudel, P., Karki, M., Chapagain, N. P., (2021). **Tracking IMF Fluctuations near Sun using Wavelet Analysis: Parker Solar Probe First Encounter Data**, Geomagnetism and Aeronomy
- Gautam, S. P., Silwal, A., Tiwari, M., Subedi, S., **Khanal, M.**, & Jha, A. K. (2021). Dust Properties of Two New Cavity Structures Nearby Asymptotic Giant Branch Stars: The IRAS Survey. Journal of Institute of Science and Technology, 26(2), 119–126. <https://doi.org/10.3126/jist.v26i2.41556>
- Silwal, A., Gautam, S. P., Chaudhary, K., **Khanal, M.**, Joshi, S., Dangaura, S., & Adhikari, B. (2021). Study of Solar Wind Parameters during Geomagnetic Storm of 26 August 2018 and 28 September 2017. Thai Journal of Physics, 38(2), 54-68 <https://ph01.tci-thaijo.org/index.php/ThaiJPhys/article/view/244031>.

COMPUTATIONAL SKILLS

- **Python** for data analysis, and visualization
- **LaTeX and Beamer** for Text formatting and Presentation
- **Origin and Gnuplot** for graph plotting and curve fitting
- **MS Excel**

WORKSHOPS AND PROJECTS

- May 2023 – Aug 2023** Worked on “**Feasibility Assessment of Solar Photovoltaics as a Sustainable Energy Source for Power Generation for the IceCube Gen2 Construction**” as a part of the Swigart Fellowship Program for summer 2023
- Nov 2020 – Feb 2021** The third Kathmandu Astrophysics School on “**Introduction to astronomical observations and data analysis**” (KAS20) organized by the University of Melbourne (Australia)
- Understood the key concepts and techniques in observational astrophysics, introductory astrophysical coding in Python, professional development, and teaching skills.
- Jul 2020** **Computational Workshop on Space Science** organized by NSRS and completed the project on "Study of Variation of Solar wind parameter during Parker Solar Probe (PSP) closest encounter (0.17AU) to Sun"
- Sep 2019** **Workshop on Space Weather and Upper Atmosphere Physics (WSWUAP-2019)**” jointly organized by the Department of Physics, Amrit Campus, Tribhuvan University, Nepal, and The Abdus Salam International Center for Theoretical Physics (ICTP), Trieste, Italy, and completed the project on "Study of TEC Variation at different stations of Nepal during Strong Geomagnetic Storm in 2018"

PARTICIPATIONS

- Oct 2023** Poster Presentation on **American Physical Society (APS) 4 Corners** meeting
- Jul 2020** **1st International e-Conference on Recent Advances in Physics and Material Science (IC-RAPMS 2020)** organized by Kurseong College, Darjeeling in collaboration with St. Joseph’s College, Darjeeling, West Bengal, India
- May 2019** **School of Astronomy and Space Science** organized by B.P Koirala Memorial Planetarium, Observatory and Science Museum Development Board, Nepal
- Dec 2018** **The Physics without Frontiers Winter School** jointly organized by The Abdus Salam International Center for Theoretical Physics (ICTP), Trieste, Italy, and Kathmandu University, Nepal