Sudat Khan

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UNLV

Education

University of Nevada, Las Vegas August 2024 - Present
Ph.D. Astronomy *Las Vegas, NV, USA*
- Advisor: Prof. Zhaohuan Zhu

Stony Brook University August 2020 - May 2024
Bachelor of Science: Physics & Astronomy *Stony Brook, NY, USA*
- Advisor: Prof. Philip J. Armitage
- Astronomy Honors Thesis: *Understanding the Hydrodynamics of Planetary Mergers and Resultant Merger Ejecta*

Research Experience

Flatiron Institute - Center for Computational Astrophysics May 2023 - Present
Guest Researcher | Advisor: Dr. Wenrui Xu *New York, NY, USA*

Undergraduate Research Experience & Creative Activities May 2022 - August 2022
Undergraduate Student Researcher | Advisor: Prof. Philip J. Armitage *Stony Brook, NY, USA*

Senior Research in Astronomy - Stony Brook University January 2022 - May 2024
Undergraduate Student Researcher | Advisor: Prof. Philip J. Armitage *Stony Brook, NY, USA*

Publications

Type II Migration due to Multiple Embedded Planets in Protoplanetary Disks (In Preparation)
Sudat Khan, Wenrui Xu (2024)

Awards & Fellowships

Dean's List - Stony Brook University Fall 2020 - Spring 2024
Top 20% of the Class of 2024

Oral Presentations

Emerging Researchers in Exoplanet Science Symposium IX - Cornell University July 2024
Type II Migration due to Multiple Embedded Planets in Protoplanetary Disks *Ithaca, NY, USA*

Undergraduate Physics Colloquium - Stony Brook University April 2024
Type II Migration due to Multiple Embedded Planets in Protoplanetary Disks (Overview) *Stony Brook, NY, USA*

Poster Presentations

244th Meeting of the American Astronomical Society June 2024
Type II Migration due to Multiple Embedded Planets in Protoplanetary Disks *Madison, WI, USA*

Undergraduate Research & Creative Activities Research Symposium May 2023
Accretion Disk Formation via Jupiter-Massed Gas Giant Protoplanetary Collisions *Stony Brook, NY, USA*

Research Interests

Protoplanetary Disks, Planet-Disk Interactions, Disk Substructures, Astrophysical Fluid Dynamics/Fluid Instabilities, Astrophysical Magneto-hydrodynamics, Planetary Dynamics/Stability

Technical Skills

Languages: Python3, Fortran90/2008, C++11/17/23
Astrophysical Codes: `REBOUND`, `PHANTOM`, `ATHENA++`