JUSTIN BOPP

New York, New York ◇ He/Him/His ◇ jbopp@gradcenter.cuny.edu ◇

EDUCATION

Astrophysics - Master of Science August 2023 - Present
City University of New York, Graduate Center *New York, NY*

- Thesis: "Fast Transients from Magnetic Disks Around Non-Spinning Collapsar Black Holes"

Physics - Bachelor of Science May 2023
California State University, Stanislaus *Turlock, CA*

- Dean's List: Fall 2022, Spring 2023, Fall 2023

RESEARCH EXPERIENCE

Graduate Researcher - Center for Computational Astrophysics September 2023 - Present
Advisor: Dr. Ore Gottlieb *New York, NY*

- Conducting theoretical black hole research using HAMR GRMHD simulation code (python, C++), simulating the Blanford-Payne mechanism to power collapsar jets in the accretion disc of a non-rotating black hole

Undergraduate Research Intern - California State University, Stanislaus May 2022 - August 2023
Advisor: Dr. Brian Morsony *Turlock, CA*

- Rubin Observatory Data Preview Delegate : used a CMNN algorithm in python as a photometric redshift estimator and made python script to match host galaxies to detected transients
- Fitting Observed Abundances to Metals from Supernovas (FOAMS): obtained metallicity data from APOGEE survey of 100,000 Milky Way stars, converted the abundances from normalized number abundances to the mass abundances needed to run through the FOAMS program, and determined Core-Collapse to Type-Ia supernova ratio of progenitors of Milky Way stars

PUBLICATIONS

J. Bopp & O. Gottlieb 2024
Fast Transients from Magnetic Disks Around Non-Spinning Collapsar Black Hole

PRESENTATIONS

Talks:

Charting the CCSN-GRB Spectrum: Non-Spinning Black Hole-Driven Jets in the LSST Epoch July 2024
Seventeenth Marcel Grossman Meeting *Pescara, Italy*

Determining PhotoZ in Rubin Science Platform dpo.2 July 2022
CSU/Rubin Data Summit 2022 *San Luis Obispo, CA*

Posters:

Using Photometric Redshifts to Identify Host Galaxies in the Rubin Data Preview April 2023
APS April Meeting 2023 *Minneapolis, MN*

Using Photometric Redshifts to Identify Host Galaxies in the Rubin Data Preview January 2023
241st AAS Meeting *Seattle, WA*

TECHNICAL SKILLS

Computer Languages	Python, C++, Javascript, Matlab
Tools	Github, Parallel Processing, ADQL, Machine Learning, Rubin Data Platform