



Department of Physics and Astronomy
SPRING 2024 Colloquium Series

“Using Monte Carlo Simulations to Analyze the Striped Jet Model”

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Sac State Physics Major

Gamma-ray bursts (GRBs) involve powerful jets that emit gamma-rays during a period of seconds. While there are many models of these jets, our project will focus on the striped jet model. This model assumes the presence of regions of different widths with varying magnetic field directions in the jet. We will develop a Monte Carlo simulation to take a probabilistic approach in understanding the properties of jets within this specific model. We will compare our model expectations, particularly the gamma-ray luminosity and peak energy, with GRB observations.

***Tuesday, April 30, 2024
4:00 - 5:20PM**

MND1015

Open & Free to all students, faculty and public