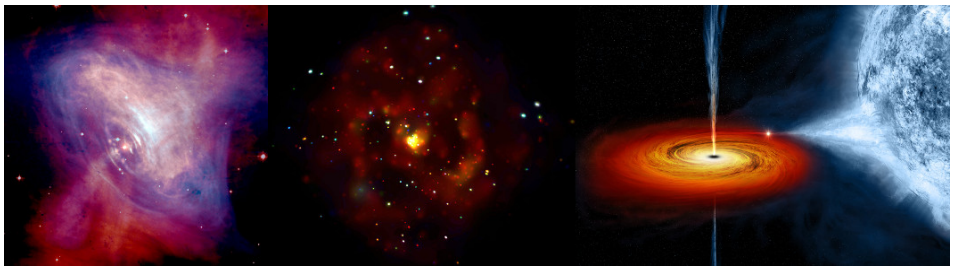

Contribution ID: **23** Type: **not specified**

Three Dimensional Simulations of Advective, Sub-Keplerian Accretion Flow onto Non-rotating Black Holes

Monday, April 3, 2023 11:55 AM (25 minutes)

Observations of X-ray binaries containing black holes indicate the presence of geometrically thick, hot, dynamic Compton cloud around the black hole to satisfactorily explain it's spectral and temporal properties. In this work, I present results of a few high resolution, 3D hydrodynamic simulations of such Compton cloud around a non-rotating black hole. Our results demonstrate that the formation of stable, geometrically thick, torus is indeed possible for various accretion flow parameters.

Presentation Type

Oral

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Session Classification: Black Hole: Theory

Track Classification: Black Hole: Theory