Workshop on Kinetic Models of Relativistic Plasmas



Contribution ID: 20

Type: not specified

Nonideal Fluid Models of Accretion

Tuesday 28 February 2023 09:40 (40 minutes)

The numerical accretion models that are used to interpret EHT observations of low accretion rate black holes are almost exclusively ideal fluid models. Kinetic models of the same accretion flows, by contrast, can capture effects not present in an ideal fluid, but they are much more computationally expensive and must make approximations of their own. This motivates interest in nonideal fluid models that use a closure to incorporate some kinetic effects but are nontheless computationally inexpensive enough to be useful for interpreting observations. I will describe a nonideal fluid model, its numerical implementation, lessons learned, and early results.

Author: GAMMIE, Charles
Co-author: DHRUV, Vedant

Presenter: GAMMIE, Charles