



Contribution ID: 288

Type: **Poster**

Accretion of a relativistic kinetic gas into a black hole

Wednesday 16 December 2015 15:36 (3 minutes)

We analyze the accretion of gas into a black hole background space-time in the context of relativistic kinetic theory. The state of the gas is described by a distribution function which has to satisfy the general relativistic Boltzmann equation.

In the first part of this work, we describe a method to find the most general solution of this equation in the collisionless case.

In the second part, we apply our result to the case of a radial flow propagating on a nonrotating black hole. We compute the accretion rate and compare it to the one of the Michel fluid flow solution, clarifying previous results in the literature.

Collaboration

Olivier Sarbach

Authors: Mr SARBACH, Olivier (IFM-UMICH); Ms RIOSECO, Paola (IFM-UMICH)

Presenter: Ms RIOSECO, Paola (IFM-UMICH)

Session Classification: 16 - Black holes