



INVITATION

as part of the Gravitational Physics Literature Seminar

to the online talk by

Adam Cieřlik

(Jagiellonian University of Krakow)

on

“Monte Carlo simulation of a planar accretion of the relativistic Vlasov gas onto a moving Schwarzschild black hole”

Abstract:

I will present the results of a Monte Carlo simulation of a planar accretion of the relativistic Vlasov gas onto a moving Schwarzschild black hole. The gas is assumed to be in thermal equilibrium at infinity, where it obeys the Maxwell-Jüttner distribution. This simulation methodology builds on the approach developed last year for a stationary Schwarzschild black hole. I will elucidate the modifications necessary for setting up the simulation for the complexities introduced by black hole motion. Furthermore, our Monte Carlo results consistently confirm the analytically derived exact expressions for particle current density in all examined cases.

Time: Wednesday, 13 November 2024, 2:15 p.m.

Location: Seminar Room A, Währinger Straße 17, 1090 Vienna, 2nd floor

<https://univienne.zoom.us/j/6540036841?pwd=SytyVkZJZzNyRG9lMm13ejlHeHRRUT09>