



ID de Contribution: 40

Type: Non spécifié

## **Astrophysical jets around compact objects : a source for neutrinos and gravitational waves ?**

*mardi 19 mai 2009 16:15 (30 minutes)*

In this talk, I will try to present a short overview of state-of-the-art studies and simulations dealing with the astrophysical jets being observed in the vicinity of compact objects. I will start by presenting magnetohydrodynamical simulations aiming to explain how can astrophysical plasmas be believed to be accelerated by magnetic field interacting with rotating black holes such as active galactic nuclei and microquasars. I will then continue by presenting mechanisms that may be at work within these flows and that may be responsible for the emission of high energy particles such as cosmic rays and neutrinos. Finally I will mention some works trying to estimate the ability of relativistic jets to give birth to detectable gravitational waves.

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**Classification de Session:** More on the emission processes of GW and HEN