

Astrophysical jet formation from a magnetized npe-gas

Tuesday 1 December 2020 11:00 (20 minutes)

We study the quantum magnetic collapse of a partially bosonized npe-gas and obtain that this type of collapse might be one of the mechanisms behind matter expulsion out of compact objects. We check also that this gas might form a stable stream of matter whose collimation is due to its strong self-generated magnetic field. Possible astrophysical applications of these results, in particular related to jet formation and its maintenance, are discussed.

Authors: PÉREZ MARTÍNEZ, Aurora (Instituto de Cibernética Matemática y Física (ICIMAF), Habana, Cuba); QUINTERO ANGULO, Gretel (Facultad de Física, Universidad de La Habana, Habana, Cuba); PÉREZ ROJAS, Hugo (Instituto de Cibernética Matemática y Física (ICIMAF), Habana, Cuba); GONZALEZ FELIPE, Ricardo (ISEL and CFTP, Lisboa, Portugal)

Presenter: QUINTERO ANGULO, Gretel (Facultad de Física, Universidad de La Habana, Habana, Cuba)