Contribution ID: **61** Type: **not specified**

Phenomenology: Non-ideal GRMHD and compact objects

Tuesday, September 5, 2023 2:45 PM (15 minutes)

I will present the general formalism for including resistive dissipation and mean-field dynamo amplification of magnetic fields in the set of GRMHD equations, needed to simulate numerically the relativistic plasmas in the environment of compact objects. A selection of applications will be discussed, from the exponential growth and saturation of magnetic fields in thick tori around black holes and in post-merger meta-stable supramassive neutron stars, to the first systematic study of the propagation of magnetized relativistic jets in the presence of finite conductivity.

Presenter: DEL ZANNA, Luca (Università di Firenze)

Session Classification: Parallel Sessions