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Type: Talk/Seminar

Magnetized self-gravitating tori around black holes

Monday 23 September 2019 16:50 (20 minutes)

I will discuss recent models of stationary, self-gravitating, magnetized tori (disks) around black holes. They are constructed by solving the coupled set of Einstein equations and the equations of ideal general-relativistic magnetohydrodynamics. In the first part of the talk, I will focus on the impact of the magnetic field on the properties of such tori. If time permits, I will also discuss general-relativistic effects characteristic for very massive tori: bifurcations in the parameter space of solutions, toroidal ergoregions connected with the tori, the appearance of local maxima of the circumferential radius.

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Session Classification: Parallel Sessions

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