



“Extreme electrodynamics of black holes”

by Amir Levinson (Tel Aviv University)

Time and Date: 10:00-12:00, Oct 11th, 2023

Place: Room 721, Science Complex B H03 (hybrid)

Registration: "<https://us02web.zoom.us/meeting/register/tZEqduqsqD0qG9a8LEkbwwFsiDMEAATqNg2V>"

In this lecture I'll be describing the basic processes involved in the activation of Kerr black holes. The first part will outline the observational motivation, including a brief description of disparate cosmic phenomena that are powered by rotating magnetospheres of neutron stars and black holes. In the rest of the lecture, that will focus on black holes, I'll explain some basic concepts of black hole electrodynamics, including possible plasma injection processes, formation of force-free structures, and dissipation via magnetic reconnection in the inner accretion flow. Examples of numerical experiments, particularly GRMHD and GRPIC simulations of BH activation, will be presented.

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