Contribution ID: 7 Type: Standard talk

Diagnosing accretion with polarimetry

Tuesday, 6 May 2025 14:45 (15 minutes)

Very long baseline interferometry observations can now resolve event-horizon angular scales for at least 2 supermassive black holes, M87 and Sagittarius A. What is more, these observations give us access to resolved polarimetry, that constitute a particularly powerful tool for the diagnostic of the accretion flow and magnetic fields in the compact region. I will discuss how the polarization is used to analyze the Event Horizon Telescope (EHT) observations of M87 and Sagittarius A in order to make comparisons between numerical models and the reality, and what constraints can be made on quantities such as the magnetic field strength and geometry or the temperature of the electrons.

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Session Classification: Tuesday afternoon

Track Classification: Observational data