

# Physics of SMBH in nearby AGNs

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**Abstract.** We aim to leverage the transformational science enabled by the Event Horizon Telescope (EHT) to study the physics of, and near, the black holes in a sample of galaxies covering a large parameter space in SMBH mass, accretion rate, and jet power. To this end, we work on a sample of nearby galaxies whose directly measured black hole masses and distances imply that 40 micro-arcsec EHT observations will resolve the central engine at  $<100$  Schwarzschild radius resolution. As an EHT member, I will present the results from the study of M87 and will discuss the impact of this finding on the study of nearby AGNs. The study of the SMBHs in these systems using molecular and ionised gas kinematics will also be presented.

**Keywords.** galaxies: active, galaxies: properties, galaxies: M87

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