

Project 9/2014: **"Triaxial modeling of elliptical and barred galaxies"**

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**Abstract:**

We aim at measuring the masses of central supermassive black-holes (SMBH) from adaptive-optics based, 2-dimensional stellar kinematical data using state-of-the-art dynamical models. In the last ten years dynamical modeling has revealed the existence of correlations between the masses of SMBHs and the velocity dispersion and stellar masses of their host bulges, providing important constraints on galaxy formation models and theories of SMBH growth. Previous studies focused on intermediate-mass ellipticals and disk galaxies with classical bulges as they can be addressed with axisymmetric models. We want to verify whether or not these SMBH-galaxy correlations also hold for the most massive triaxial elliptical galaxies or for (mostly barred, non-axisymmetric) disk galaxies hosting pseudo. Both galaxy types probe new black-hole growth channels: internal secular evolution of disk galaxies (pseudo-bulges) and gas-poor merging (massive ellipticals).