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The M87 ring in polarised light and polarimetryc synthetic data modelling

Monday 13 September 2021 16:45 (15 minutes)

The Event Horizon Telescope (EHT) is a global very long baseline interferometry (VLBI) network imaging supermassive black holes at horizon scales at millimetre wavelengths. In this talk, I will present an overview of the first polarised-light images of the black hole at the heart of the M87 galaxy, and the constraints they impose on the structure of the magnetic fields near the black hole. I will discuss the rigorous validation tests that were performed using synthetic data and how the polarimetric analysis was performed, with a focus on polarimetric leakage. I will further discuss the development of MeqSilhouette v2, a fully polarimetric synthetic data generation package in step with these analyses and its future directions and applications for mm-VLBI observations.

Abstract field

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