



Wednesday, December 11
14:00 - 15:00
Room 1.4.14

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CENTRA - FCUL **CENTRA - IST**

Spatial Field Reconstruction in Astronomy: Property Inference Beyond Resolution

Singular extended astronomical observations or multiple interacting sources present spatially-correlated structures which can be exploited by non-classical statistical methodologies to upscale property and kinematical inference. Using data from MUSE, Gaia and radiative transfer simulations, we developed pipelines that employ the Integrated Nested Laplace Approximation (INLA) method to reconstruct astronomical scalar and vector fields regarding the unobserved internal motion of open clusters and galactic properties maps.