

A new software for photometry and astrometry in the AO era

Tuesday 18 February 2020 15:03 (18 minutes)

In the AO era, the intrinsic complexity and variability of the point spread function (PSF) poses severe challenges to the analysis of optical and NIR images.

I will present preliminary results from a new astro-photometric software which we specifically designed to deal with spatially complex and variable PSFs.

The software iteratively build a series of numerical PSFs from different regions of the image, interpolates them and fits them it to identified stellar sources, improving at each step both the PSF modelling and the source fitting quality.

I will present the main advantages and disadvantages of this software and compare its performance to that of classical softwares (like DAOPHOT) on synthetic and real images.

Potential synergy with classical PSF-reconstruction methods will be also discussed.

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Session Classification: Analisi dati: sfide e strumenti