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Sesión Científica: Instrumentacion y sipercomputacion

Titulo: Correcting the non-linearity of the 2MASS Atlas Images photometry

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Resumen:

The data products of the 2 Micron All Sky Survey (2MASS) consist of Point Source Catalogue (PSC), Extended Source Catalogue (XSC) and Atlas Images, covering the entire sky. Although the scientific output of the survey is tremendous, an important limitation exists that hampers the usage of the Atlas Images. Due to computational power limitations at the time of the final release, they are not corrected for non-linearity effects, arising in the Near-IR detectors at high flux levels. Here we present correction factors for the 2MASS Atlas Images photometry, based on aperture photometry of isolated bright stars and comparison with the magnitudes of these objects in the PSC (the PSC magnitudes were corrected for the non-linearity effects). Although newer NIR surveys exist, as a rule they are deeper that 2MASS and could not be used to study the bright NIR objects. This is the niche that is going to be filled by the current work, assuring the synergy of 2MASS and current surveys for the future.