

# Calibration and Standardization of Large Surveys and Missions in Astronomy and Astrophysics



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## Calibration plan for J-PAS and J-PLUS surveys.

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J-PAS survey consists of an 8000 square degree photometric sky survey with a set of 52 narrow-band and 2 broad-band filters. The main goal is to produce a photo-redshift catalog of ~15 millions red, early-type galaxies with a precision  $\sigma(z) \sim 0.003(1+z)$  to measure the Baryonic Acoustic Oscillation (BAO). Such precision requires specific care in the photometric calibration survey. This contribution presents the calibration protocol developed at ceFca for the J-PAS data and to be applied from its first day. An auxiliary telescope 80 cm telescope will perform an initial survey, J-PLUS, available one year before J-PAS, to create a set of flux calibrated stars in all J-PAS fields. Seven reference stars were already chosen to calibrate in flux the J-PLUS survey. J-PLUS 12-filter system was also specifically optimized to retrieve stellar parameters,  $T$ ,  $\log(g)$ ,  $[Fe/H]$ , through the fitting of flux calibrated models. J-PLUS will be used as the standard network of flux calibrated stars to create synthetic spectro-photometry for J-PAS 56-filter system and to achieve the 2% photometric precision required for BAO measurements.

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