

# In-orbit scientific calibration of Hipparcos

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The performance requirements of ESA's space astrometry mission are exceptionally stringent and their achievement will depend on an accurate calibration of the scientific instruments. A synthetic approach has been adopted for the study of the payload calibrations to be performed in orbit, addressing objectives, methods, common characteristics and operational constraints. In this paper the scientific requirements are reviewed and the assessment of the methods proposed for the various calibration tasks is discussed. Representative results and a possible plan for operational implementation are presented, demonstrating the overall feasibility of the in-orbit calibration.

Keywords: CALIBRATING, HIPPARCOS SATELLITE, ORBITAL SERVICING, SPACEBORNE TELESCOPES, ASTROMETRY, ASTRONOMICAL CATALOGS, ASTRONOMICAL MAPS, ASTRONOMICAL PHOTOMETRY, PAYLOAD CONTROL