



Contribution ID: 48 Type: **Poster presentation (90 second oral summary, 90 minute poster session & free presentation times over 3x 40m coffee breaks)**

Precision 'astrometry' in under sampled spectroscopic data for precise velocity measurement

Tuesday, 12 March 2024 14:30 (1h 30m)

The Veloce facility on the Anglo-Australian Telescope aims to implement precision radial velocity capabilities, for a fraction of the traditional cost. One aspect of the required cost saving is compressing an under sampled integral-field unit echelle spectral format onto three 4kx4k e2v CCDs. Analysing the data to obtain precision velocity measurements calibrated with a laser-frequency comb presents many of the same challenges as obtaining precise astrometry with an undersampled imaging telescope like HST. We present initial results from the use of the 'effective PSF' techniques developed for the HST, but deployed in the calibration of a ground-based spectrograph - techniques that could be readily employed on any other precision radial velocity facility to improve milli-pixel-level calibrations.

contribution subject matter

point spread function fidelity

Keywords for your contribution subject matter (this will assist SOC in accurately characterizing your contribution)

astrometry, data analysis, under-sampled images

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Session Classification: Poster Session

Track Classification: Major ISPA Workshop Tracks: Software/Algorithms for Precision Astronomy