

Poster

Splinter E-Science

A STUDY OF PHOTOMETRIC ERRORS ON TWO DIFFERENT
PHOTOGRAPHIC PLATE SCANS

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A considerable number of photographic plate archives exist world wide and digitization is in progress or already has been finished. Not only different type of scanners were used but also spatial resolution and dynamic range often were limited due to process duration and storage space. The open question is the effect of these limitations on the results. 61 high resolution photographic plates of the Gamma Cyg field from the Bruce astrograph at Landessternwarte Heidelberg–Königstuhl (aperture 40 cm, focal length 200 cm) had been digitized both in Heidelberg and Sonneberg. Both scanners were set to 16 bit dynamic range. The Heidelberg scanner was operated at 2540 dpi resolution, resulting in a scale of 1 arcsec/pixel, while the Sonneberg scanner was operated at 1200 dpi, yielding a scale of 2.1 arsec/pixel.

In the presented study the standard deviation of non-variable star light curves were examined in dependence of brightness and plate coordinates in both series. No evident differences could be found. A comparison of both scan series will be presented.