

## Reddening measurements using CCD uvby (Strömgren) photometry

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Reddening measurements for interstellar clouds have usually relied on one of two techniques, star counts or spectro-photometric measurements. Star counts have fairly low resolution, due to the necessity of enough stars per resolution element to guarantee good statistics, and are further prone to uncertainties due to possible inhomogeneities in the distribution of background stars. The direct measurement of reddening towards spectrally classified stars is limited to fairly bright stars and/or require large amounts of telescope time.

We present preliminary results for a technique to determine the extinction using CCD uvby (Strömgren) photometry, without the need to perform spectral classification of the stars. The method relies on the fact that the uvby system allows two independent measurements of the reddening through the  $m_1$  and  $c_1$  indices to select the true intrinsic colors for each star. Thanks to the availability of large format CCD:s this technique allows large fields to be observed in reasonable amounts of time. Using observations from the Burrell Schmidt on Kitt Peak we find that the technique allows reliable reddening measurements to be made down to at least  $V= 15m$ .