

On the atmospheric extinction reduction procedure in multiband wide-field photometric surveys

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Abstract

We propose an improved method for the atmospheric extinction reduction within optical photometry. Our method is based on the simultaneous multicolor observations of photometric standards. Such data are now available within the modern wide-field sky surveys and contain a large amount of information about instant atmospheric conditions. So, it became possible to estimate the extinction parameters on the basis of a quite short observational dataset and, hence, to trace the rapid stars twinkling accurately. Having been developed for a new MiniMegaTORTORa observational system, the proposed method can be adopted for a wide range of modern observational programs.

Keywords

Surveys, Techniques: photometric