

by performing the fit directly to the K-band data, enabling us to take the observational uncertainties more rigorously into account which proves to be crucial for the successful analysis of these faint objects.

The interpretation of the data is not straight forward, however, since the star appears to be significantly bluer than expected for its metallicity leading to very high temperatures. We hope to be able to resolve this problem and its subsequent detailed analysis.

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#### STUDY OF THE IR EXCESS IN EARLY TYPE STARS. AN EXPANDING ATMOSPHERIC MODEL WHICH INCLUDES A CHROMOSPHERIC REGION

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We constructed an expanding atmospheric model where we have assumed the existence of a chromosphere. We applied the Feautrier elimination scheme in order to solve the continuum radiative transfer equation assuming a spherically symmetric medium in LTE. We made a detailed analysis of the different continuum opacity sources that contribute to the emergent flux and we determined the continuum formation regions. Further, we found that when the IR continuum formation region contains the chromosphere, the standard limb-darkening law fails.

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#### CATALOGUE OF OB TYPE STARS

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This catalogue was essentially carried out to analyze observational properties of OB-type stars from both, broad band photometry and spectroscopic classification.

We compiled a selection of photometry, spectral classification and other quantities (when available) such as rotational velocities, binarity, visual variability, and suspicions about both binarity and variability. However a question about data quality deserves some words.

We have made a data selection based upon single papers from well ranked observers (a very subjective sense) and, on the other hand, a lot of data were extracted from available catalogues. But this is fully insufficient to guarantee that homogeneity is kept constant across the overall catalogue. Although we have put special emphasis on this aspect we are aware that a lot of problems remain yet.

Handling information is a prominent and dramatic problem when related to the sources of the data because sometimes one must sacrifice quality to get quantity. One has a lot of sources of information in the case of very bright stars (e.g., at  $V$  above 7th magnitudes) so a possible selection of authors (once again, many times under a very subjective position) may be easily made. But in the case of the faintest stars the restrictions in the list of available authors are really strong and no more than a few authors remain. The overall catalogue covering a magnitude range from  $V = -1$  to  $V = 14$  magnitudes is not uniform (there are many authors for bright stars, a few ones for the faintest ones). In an attempt to give information about data reliability we include the number of different nights each star was observed, but this is not always possible because many authors do not inform about this.

#### POLARIMETRIC STUDY OF THE IC 2944 STELLAR AGGREGATE

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IC 2944 is a compact stellar aggregate centered on HD 101205 ( $l = 294.8^\circ$ ,  $b = -1.7^\circ$ ), which is embedded in an extensive H II region. Within the Galaxy it is located at the inner border of the Carina spiral feature.

We present multicolor polarimetric measures for 30 stars in  $UBVRI$  bandpasses, belonging to the rich stellar aggregate IC 2944. This study intends to determine the amount and direction of the linear polarization towards the aggregate. By observing the amount of the interstellar polarization in those bandpasses, the wavelength of maximum polarization is computed and then analyzed its relation to the optical properties and characteristic particle-size distribution of the grains responsible of the polarization.

The 30 stars observed polarimetrically were selected among those observed photometrically by Ardeberg & Maurice (1980, *A&AS*, 39, 325).