

# PHYSICAL PARAMETERS FOR THE EXPORT SAMPLE: ROTATIONAL VELOCITIES AND EFFECTIVE TEMPERATURES

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and EXPORT †

**Abstract.** The methods used to calculate projected rotational velocities and effective temperatures for the targets observed during the 1998-1999 La Palma International Time campaign are described here.

## 1. The methods

A precise determination of rotational velocities is of fundamental importance to understand the process of planetary formation. Projected rotational velocities have been measured using the method based on Fourier analysis which, unlike other methods, does not need any *a priori* calibration providing direct and independent measurements of  $v \sin i$ . Uncertainties due to different source of errors have been estimated.

Effective temperatures, on the other hand, constitute the most important stellar parameter for locating stars in the H-R diagram and/or for abundance determinations. Despite the numerous set of tools of different nature used as temperature indicators an accurate determination is, in some of our targets, difficult to achieve due to the presence of circumstellar material which can hide or contaminate the information coming from the stellar photosphere. Four methods (uvby $\beta$  photometry, Balmer lines, metallic line ratios and spectral type-temperature relations) have been investigated.

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