

# The first results in the magnetic survey of main sequence stars

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**Abstract.** To derive a selection-free magnetic field distribution for main sequence stars we have started a magnetic survey of the brightest northern stars. The sample represents well the main sequence stars in the range B3 -:- F9. We describe the sample and conclude that it satisfies well the purposes of studying the magnetic field statistics. The observations are carried out with the coude echelle spectrograph CEGS of the 1 m telescope. We present here the results of observations of 7 stars of the list. In 6 stars there is no positive magnetic field detected. The obtained errors range from 20 to 300 G; they agree well with the expected accuracy. The accuracy depends mainly on spectral type of a star. For  $\beta$  Vir,  $\epsilon$  Ser,  $\alpha$  Lyr our estimates are consistent with ones obtained by other authors. The presence of a weak magnetic field of about 100 -:- 200 G in  $\alpha$  Aql is possible.

**Key words:** stars: magnetic fields - magnetic survey - main sequence - CEGS stars: individual: HD 187642