

Radial Velocity and Magnetic Field Measurements of the A-Type Supergiant ν Cep (207260)

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On the basis of 55 Zeeman spectrograms obtained at Tautenburg in the years 1975-1979 the effective magnetic fields and the radial velocities of the supergiant ν Cep (207260, A2 Ia) were determined. For the effective magnetic field a slow variation occurring on a time scale of years was found. The spectrograms taken at the first time show only moderate effective magnetic field strengths of few hundred gauss, but in the year 1978 values of +2000 gauss were detected.

The measured radial velocities show a longtime variability similar to that of the magnetic field as well as more rapid changes. Periodical variations of the radial velocity of about 40 and 70 days, perhaps produced by the rotation and an orbital motion of the star, are indicated. The Balmer absorption line H_β , H_γ , and H_δ have different radial velocities referring to the presence of an expanding envelope. Moreover, there exist significant differences between the velocities of various elements respectively ions of 1–4 km/s.

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Remark of the co-author E. Gerth in 2011:

The documentation of the conference is contained in a booklet in form of abstracts of the lectures, which are reproduced here faithfully word-for-word.

The lecture at the conference was given by Dr. Gerhard Scholz.

The publication announced above can be called from the internet by the address:

<http://adsabs.harvard.edu/full/1980AN....301..211S>

or

www.ewald-gerth.de/53.pdf