New Results of the Investigation of the Magnetic Star 52 Her

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In the years 1975-1978 36 spectrograms of the magnetic Star 52 Her were obtained with the Zeeman analyzer at the Coudé focus of the 2m telescope at Tautenburg. The radial velocities and the effective magnetic field strengths were determined by using the improved Abbe comparator. A periodical variation of the magnetic field with a period of $3^d.976$ was found; the mean value of the field strength is 1630 gauss and the amplitude 300 gauss. For the radial velocities two periods were detected, $3^d.86$ and $7^d.15$, respectively; the deviation from the mean value is only 0.6 km/s. The investigations of all up to date known magnetic field measurements of the star 52 Her (carried out by Babcock, Wolff, Preston, Borra, Landstreet), covering a time scale of 15 years, show a secular variation of the magnetic field strength with a period of 13 years.

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Remark of the author 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. Ewald Gerth (in Russian).
The results were published not until 1991 because of a strange reversal of the polarity of the magnetic field strength observed in the years 1978 to 1979, which had to be investigated. Therefore, in order to accumulate more measuring results and to exclude technical artifacts, it was decided to observe the star further for a longer period. The results are listed and discussed in a paper available by the address:
http://adsabs.harvard.edu/full/1990AN....311...41G