

DISCUSSION (North)

COWLEY: Can you refresh my memory? Didn't Hartoog (Ap. J., 212, p. 723, 1977) suggest the same result as you, as far as the apparent braking of magnetic stars was concerned?

NORTH: Sorry, I did not understand the name of the person?

COWLEY: [attempting an accent] 'Ar-toog.

NORTH: 'Ar-toog, yes, of course! Indeed, he had already reached the same conclusion, and this started the controversy; I should have mentioned his result. The works by Abt (Ap. J., 230, p. 485, 1979) and by Wolff (Ap. J., 244, p. 221, 1981) came later, and were responsible for a consensus that magnetic braking did occur on the main sequence.

MÉGESSIONIER: The scatter in the relation $\log g(\text{North})$ vs. $\log g$ (Mégessier) is not surprising, because in the method I used, the precision is no better than 0.25 dex.

NORTH: I also compared values of $\log g$ published by Klochkova and Kopylov for stars in the Sco-Cen moving cluster, and the agreement is significant, except that the slope of their relation is closer to 0.5 than 1.0. I do not know the reason.

SCHÖNEICH: In your $\log P$ vs. $\log g$ diagram there are four points which do not follow the general trend. We can help you to eliminate one of them: the period of HD 193722 is not ≈ 1.2 days as obtained earlier by ourselves and Winzer. The right period is about 8 - 9 days (Hildebrandt et al., *Publ. Astrophys. Obs. Potsdam*, Bd. 32, Heft 5, No. 112).

NORTH: Oh, that's fine! So the situation is improved. Thank you. [applause]

DISCUSSION (Musielok)

STEPIEŃ: The reason we observed $H\beta$ in Ap stars was that we expected an influence of magnetic Lorentz forces on the formation of Balmer lines in the atmospheres of magnetic stars. We hoped to use the $H\beta$ variations for diagnosis of the magnetic field. However, it turned out that the observed variations can be explained by the line blanketing alone.

KROLL: What is the expected variation in the equivalent width of $H\beta$?

MUSIELOK: The largest variations of the equivalent width are 25%, observed for the He-rich star HD 184927. For the other stars, the largest amplitudes were 20% for Osawa's star (HD 221568) and 10% for Babcock's star (HD 215441).

RYABCHIKOVA: I have a comment concerning CU Vir. In this case, there is a phase shift between variations of He and H lines, so it is difficult to explain the Balmer line variations by the blanketing of He in this star.

MUSIELOK: I am convinced that I took the effect of He variations in CU Vir into account correctly, but after your remark I will check this again.