

DISCUSSION (Catalano; Schöneich)

NORTH: (To Catalano) I have a comment about presumably non-magnetic Ap stars. It is very difficult to draw conclusions from only 3 or 4 points in Geneva photometry. We have many Ap stars with 3 measurements each, and the scatter of the magnitudes is no greater than that of normal stars in many cases. But, if the number of measurements is increased ten-fold or so, then most of them turn out to be variable. So, is there really one single case of an Ap star (CP2) which remained non-magnetic even after a great number of measurements?

CATALANO: Indeed, most "non-magnetic" Ap stars have only a few (< 5) measurements. But there is one star which has as many as 9 measurements and has no significant field.

STEPIEN: Several years ago George Preston took several spectra of 10 Aql and this star did not show any apparent magnetic variations over the period of observation. Has anyone obtained new data for this star? (no replies).

ADELMAN: Many photometric studies of non-magnetic CP stars outside of the variability strip which are cited in the literature to show variability are not of good quality. Problems include small numbers of data points and the lack of a proper error analysis. Recently, I analyzed differential *uvby* data from the Four College Automated Photoelectric Telescope of three stars for which low amplitude variability has been claimed: the HgMn stars 53 Tau and HR4072 and the Am star 68 Tau. My analysis of this data and of data in the literature with a Horne-Baliunas periodogram program showed that to within the errors of the photometry these three stars are constant. Except for possible eclipsing variables, I am not convinced that any single HgMn or Am star (not in the variability strip) is a photometric variable. It is far more difficult to establish constancy than variability.

SCHÖNEICH: I agree with you. Maybe you can include North's HgMn star in your program to close the problem of the microvariability of HgMn stars. I would be glad to observe a few such stars that you believe are variable. I need two comparison stars.