QUASI-PERIODIC AND PERIODIC OSCILLATIONS IN THE DWARF NOVA AH HER

J.G. Duthie

and

R.S. McMillan*

ES-62 Marshall Space Flight Center Huntsville, Alabama 35812

With a high speed photometric system we have made extensive observation of the dwarf nova AH Her. We have detected rapid oscillations on two consecutive nights during the recovery portion of the light curve of a typical outburst during the spring of 1979. The periods and the sense of the change of period are consistent with previous observations of rapid oscillations of AH Her. On another occasion we detected quasi-periodic oscillations during the rising portion of an outburst. These are similar in appearance to quasiperiodic oscillations found in other cataclysmic variables in that they appear with high statistical significance in the autocorrelation function but are not apparent in power spectra (Robinson and Nather 1979). However they are different from those reported by Robinson and Nather in the sense that they have the same order of period as the periodic rapid oscillations typical of AH Her. These results will be presented together with a discussion of their implications.

Reference: Robinson, E.L. and Nather, R.E. (1979) Ap.J. 39, 461.

Current Address: Lunar and Planetary Laboratory, University of Arizona, Tucson, Arizona 85721

-403-