

Figure 1: Some of the stronger Fe II, Ti II, and Cr II lines in the spectrum of the A2-supergiant 3 Puppis.

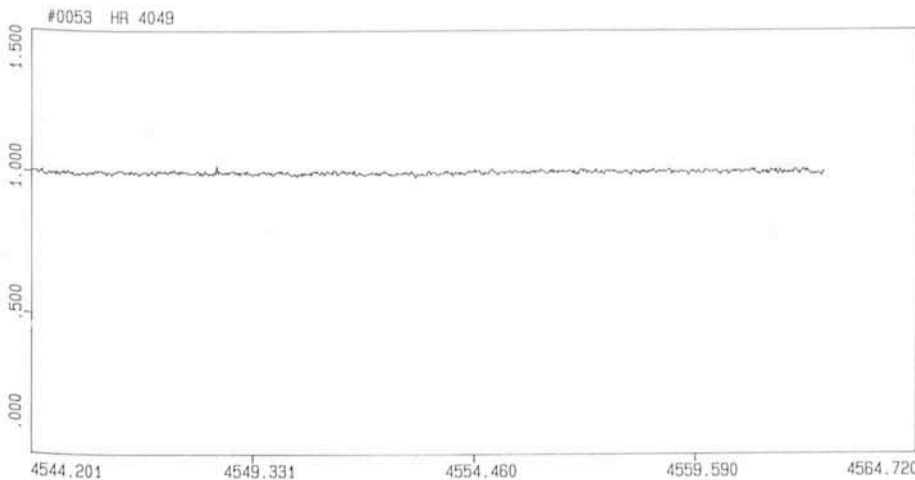


Figure 2: The same spectral region as in Figure 1, but for the peculiar early-A supergiant HR 4049.

Messenger 49, HR 4049 is not a normal massive supergiant, but probably an old low-mass star that is terminating its evolution from the red-giant stage toward the planetary-nebula stage. From previous optical spectra, it was clear that HR 4049 is a very metal-deficient object. It happens that the spectral region I observed contains some of the strongest lines of the iron-peak elements iron, titanium and chromium in the A2Ia supergiant standard Alpha Cygni. In Figures 1 and 2 the spectrum of HR 4049 (A0Ip) can be compared with that of another A-supergiant surrounded by a dust shell, 3 Puppis (A2Iabe). One does not have to undertake tedious calculations in order to know that the deficiency of HR 4049 is particularly severe! This star may also become an object for observers who are not interested in the subject of late stages of stellar evolution, but are just looking for early-type stars that are suitable for observations of stellar flat fields . . .

My run was rather long, nine nights, and maybe too long for remote control observations. The weather was excellent throughout at La Silla, but not so in Garching. After a few nights, it became a frustrating experience not to wake up having access to the familiar sunshine on the mountain, but instead watching the darkness of the northern winter with its fog so typical for November. This was entirely my problem, of course, since remote control is not primarily designed for such long runs. Instead, the technique is most promising for the possibility it offers to carry out shorter programmes, that presently aren't scheduled so often at the CAT, in an efficient and cost-saving way.

Cephei stars. I could not withstand the temptation to spend some time on my favourite object, the peculiar early supergiant HR 4049. As explained in the



La Silla Snowstorm

Skiing enthusiasts among European astronomers – who have suffered because of lack of snow in the beginning of this winter – may be interested in these pictures by K. Seidensticker, obtained in late July 1987. While tall snow-drifts block the inner yard of the La Silla Hotel, a snow plough works its way along the roads under a splendid blue sky.