

for the classification of the stars as main sequence or evolved star as well as with respect to the suitability for stellar and interstellar spectroscopy. In the spectroscopic survey data hitherto unknown emission-line objects have been discovered, objects to be further investigated by the emission nebula project.

The stellar spectra give in many cases preliminary information on the interstellar absorption lines, although often extra observations are required because of the very high resolution needed. And, as indicated before, the IS work helps to determine the value of the extinction, an essential parameter in the abundance studies.

The very existence of our Key Programme has stimulated others to pool efforts and work on the same regions as defined by us.

The abundance studies of hot and cool stars have benefitted much from the collaboration with M. Bessell from Mt. Stromlo. Not only are observing programmes coordinated, but the fact that Bessell analysed thus far stars of spectral type not addressed by us adds weight to our mutual research.

Right from the beginning, it was foreseen that our Key Programme would interact strongly with the ESO Key Programme on SEST CO observations of the Magellanic Clouds coordinated by Lequeux and Israel. For Regions C, D, and F the 12CO (1-0) observations are complete and some exist for the 12CO (2-1) transition. Region B has been partly covered and Region E is being planned.

In New Zealand, W. Tobin started patrolling some of our CCD fields in search for variable stars. The Mt. John University Observatory (see Tobin, 1991) is farther to the south than any other easily accessible facility, albeit with on average poorer weather conditions, but with better conditions for long-term monitoring programmes.

Finally, in cooperation with our Key Programme, observing programmes are being carried out with ROSAT on the MCs. In particular the Regions in the LMC will get good coverage being so near to the orbital pole of that satellite.

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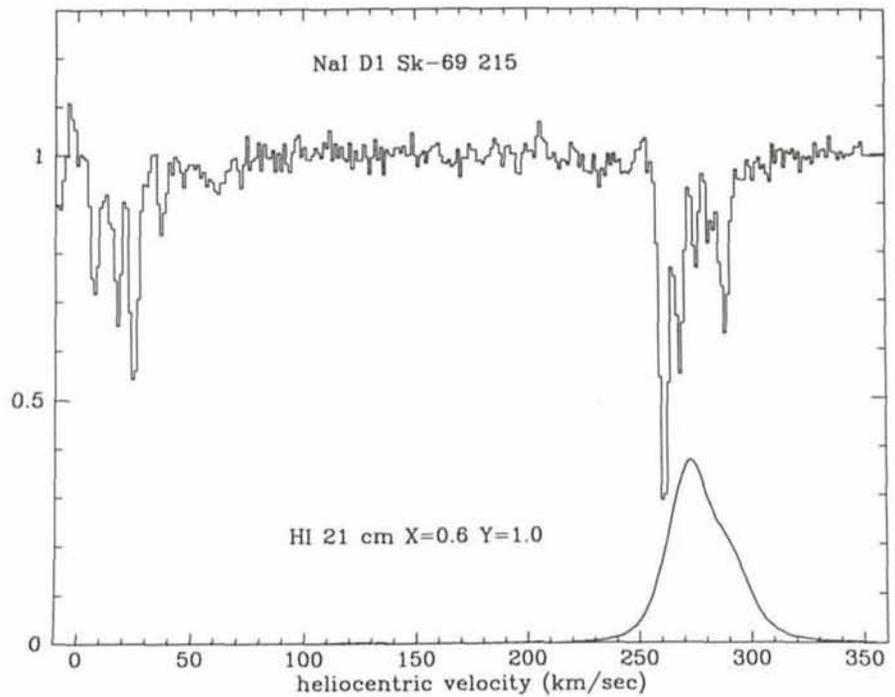


Figure 4: The interstellar NaI spectrum obtained at a resolution of 100,000 in an exposure of 5400 sec. with the 3.6-m shows the great detail of the structure of the interstellar medium in the LMC in Region F. For comparison the HI 21-cm profile from Rohlfs et al. (1984) is shown to demonstrate that (as in all lines of sight in Region E) the strong HI 21-cm emission 270 km s⁻¹ component is essentially absent in absorption. Since most of the material in this direction has a velocity near 300 km s⁻¹, the 270 km s⁻¹ gas must be approaching this part of the LMC from the rear (Vladilo et al., 1991).

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Visit to the ESO Headquarters

ESO was pleased to receive high-level visitors from Germany and Switzerland at the Headquarters in Garching, near Munich.

On October 31, 1991 Ministerialdirigent Dr. H. Strub and Ministerialrätin Dr. A. Hansen (ESO Council delegates) spent a day with ESO staff to inform themselves about the latest developments at ESO, in particular about the VLT project.

Presentations were made by senior ESO staff, and the guests from Bonn received detailed replies to their various questions. At the end of the day Drs. Hansen and Strub met with the German staff members in the auditorium where a very useful exchange of views took place.

On November 13, the new Swiss Consul General, Mr. P.A. Studer, and Vice Consul, Mr. R. Bloch, came to the ESO Headquarters to learn about ESO-Swiss interactions. They were very pleased to become better acquainted with our organization, and ESO was happy to learn about the interest of the local Swiss authorities in promoting good political and industrial contacts between ESO and their home country.