of the S2 system will provide this new correlator with a global array of stations with which to carry out international VLBI observations.

_H i in the Dwarf Spheroidal Galaxy in Sculptor_, C. Carignan, Université de Montréal.

Two years ago, the detection of $\sim 10^5 M_\odot$ of H i gas was reported in the dwarf spheroidal (dSph) galaxy in Phoenix, from single dish Parkes observations. This time, full synthesis H i observations were obtained for the dSph galaxy Sculptor using the Australia Telescope Array. Preliminary results show $\sim 10^4 M_\odot$ of H i, mainly found in the outer parts. While some rotation can be seen ($\sim$few km s$^{-1}$), it is clear that random motions provide most of the gravitational support.


A take-home observing exercise which has been used successfully for many years in non-science astronomy course at the University of Calgary is described. Students are required to observe and record the following,

- the motion of the sky against the foreground over a period of one hour
- the motion of the Moon against the background sky by observing it at intervals of one sidereal day against the foreground
- the position (azimuth and elevation), appearance, and tilt of axis with respect to the zenith, of the Moon, labelling the major features upon an appropriate drawing

Students are then required to place upon an orbital diagram the Moon, at the correct position corresponding to its phase, and their own position on the Earth, with respect to the Sun's position at the time of their observation. This diagram is used to estimate both the time to Full Moon and, with help from a brief discussion of tides, the state of the expected tide at the time of observation, in terms of both high tide or low water and spring or neap tide.

A final component requires an estimation of the diameters of two features on the Moon's surface from a photograph or diagram by a proportional argument and the comparison of these lunar diameters with equivalent and familiar distances upon Earth.


Eclipse curves measured from Mauna Kea during the 11 July, 1991 total eclipse in CO V-R fundamental bands indicate a significant extension of about 125 km of this cool component of the solar photosphere compared with the nearby infrared continuum and the measured visible limb. These curves are compared with those predicted by several recent atmospheric models which include this enigmatic atmospheric component. There is general agreement on the height of the extension between the models and observation. However, the observations at both CO and continuum wavelengths show significant limb darkening within two arcseconds of the limb. The significance of this limb extension and the possible role of atmospheric structure on this detailed limb profile will be discussed.

_A Stable Numerical Algorithm for Multidimensional Magnetohydrodynamics_, David A. Clarke, Center for Astrophysics.

It has been argued that 98 per cent of the universe is made up of plasma, and much of that