

**N39c                    The UV(IUE) spectrum of the planetary nebula PC 11(HD 149427)**

M.Parthasarathy(国立天文台、  
IIA, India)、P.García-Lario(ISO Data Centre, Spain)、S.R.Pottasch(Kapteyn Astronomi-  
cal Institute, The Netherlands)、D. de Martino(Osservatorio Astronomico di Capodimonte,  
Italy)、R.Surendiranath(IIA, India)

The UV spectrum of PC 11 is found to show variations in the strength of the [OIII](1666Å), [NIII](1750Å) and [CIII](1909Å) emission lines. The detection of continuum emission in the wavelength interval 2650Å to 3200Å indicates that the central star of PC 11 has an early F-type dwarf companion. The very low level of UV continuum in the wavelength interval 1150Å to 1900Å and the non-detection of the central star in the UV images recently taken with HST suggest that the hot whitedwarf or sub-dwarf like central star may be obscured by a dusty disk. The variations in the UV emission lines observed during the period 1987 to 1994 may be the consequence of variable emission coming from high-velocity jet-like emission visible in optical images also taken with HST in the light of [OIII]. Based on our UV observations, we confirm our identification of PC 11 as a planetary nebula with a close binary central star. Adopting the absolute magnitude of a F0V companion yields a distance of 485 pc to PC 11. If we assume a typical expansion velocity of 12.5 km s<sup>-1</sup> and considering the observed angular diameter of the nebula (4.1 arcsec), we find the age of PC 11 to be 376 years. The AGB phase of evolution of the central star seems to have been terminated only recently.