

ABSTRACTS OF CONTRIBUTED PAPERS

POSTER SESSION I

DETECTION AND STUDY OF SECONDARY STRUCTURES IN SOME PLANETARY NEBULAE

R. Louise

Observatoire de Marseille (LA N^o237-CNRS), 2 Place Le Verrier,
F-13248 Marseille Cedex 4, France

In order to detect faint nebulosities associated with planetary nebulae, long exposure plates are made on nine selected nebulae, using a large bandwidth ($\Delta\lambda = 50 \text{ \AA}$) interference filter coupled with an ITT image tube. Some peculiar features are observed, but they do not all account for "secondary structures" following Louise's terminology. We discuss the difficulties encountered by the photographic method.

Spectrophotometric observations are made for one nebula, IC 418. Contour map of (NII)/H α ratio is derived. It is shown that this ratio increases towards the outer extended envelope of the nebula. These observations are made with the IDS system of the ESO in Chile. We obtained 65 spectra covering the outer parts of IC 418.

One of the typical features of secondary structures is the enhancement of (NII) line with respect to H α . In addition, filamentary structures appear sharper in (NII) than in H α . This is fairly illustrated by NGC 650-1.

HIGH-SPATIAL RESOLUTION OBSERVATIONS OF PLANETARY NEBULAE

C.T. Hua

Laboratoire d'Astronomie Spatiale de Marseille

R. Louise

Observatoire de Marseille

Monochromatic images in H α , H β , (NII) λ 6584, (SII) λ 6717 and (OIII) λ 5007 lines are presented for morphological study of planetary nebulae. Narrow bandpass ($\Delta\lambda = 5$ to 10 \AA) interference filters are generally used in order to discriminate peculiar structures existing in different emission lines. However, large bandwidths ($\Delta\lambda = 50 \text{ \AA}$) along with long exposures, are also necessary in searching for faint nebulosities associated with planetaries.