

## THE STRUCTURE OF NGC 2392

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**ABSTRACT.** This paper reports preliminary results of a recent detailed examination of the morphology of the planetary nebula, NGC 2392.

Seven monochromatic photographs were taken through narrow band filters by a CCD camera at the  $f/15$  focus of the one metre JKT telescope at La Palma. Images of the following emission regions were taken: Fe II (4686 Å), H $\beta$ (4861 Å), [O III] 5006 Å, [O I] (6300 Å), H $\alpha$ (6563 Å), [N II] (6583 Å), [S II] 6717-32 Å. The exposures were from 200s to 500s. Because the H $\alpha$  filter had a halfwidth of 60 Å, this frame may have some [N II] contamination but the [N II] filter was narrow with a halfwidth of 16 Å. The images obtained are of very high quality and reveal interesting details of the structure of this planetary nebula. The [N II], H $\alpha$  and [O III] images are shown together with sets of isophotic contours. The CCD images allow the faint outer regions of the nebula to be seen clearly. An examination of the outer edge of the nebula shows irregularities of structure and fine wispy filaments extending outwards. The resulting diameters (lower limits) are 49" for H $\alpha$ , 49" for [N II], and 57" for [O III].

It is not easy to fit the observational data to a simple model of the nebula. Louise (*As. and Sp. Sci.*, 79, 1981) suggests a model of an inner toroid, surrounded by a spherical shell. Pascoli and Macron (*C.R. Acad. Sc. Paris*, t. 304 Serie II, No. 15, 1987) suggest that the double structure can result from a time-dependent magnetic field in the vicinity of the progenitor.