

ABSTRACTS OF CONTRIBUTED PAPERS

OSCILLATING STARS (MIRAS), MASS LOSS AND FORMATION OF PLANETARY
NEBULAE (PN)

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We report some results of an extensive study of dynamically and/or pulsationally unstable stellar envelopes at the red giant stage.

Both a static survey and numerical hydrodynamical calculations have been performed. Earlier suggestions (Smith and Rose 1972; Wood 1974) for a mechanism which gives rise to mass ejection and PN formation (via repeated shocks), are substantiated and expanded.

New results concerning the qualities of Mira variables and their association with PN are obtained and discussed.

ARE LIGHT DA WHITE DWARFS THE PROGENITORS OF PLANETARIES?

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According to a model presented elsewhere the progenitors of planetaries are fully degenerate stars with hydrogen-rich outer shells and internal temperatures lower than those of observed white dwarfs. Apparently, these stars have gone through the white dwarf stage and evolved into invisible black dwarfs. This suggests that some among observed white dwarfs may be stars with hydrogen-rich envelopes that have still to go through the planetary stage. Tentatively, we identify these stars with light white dwarfs of DA spectra and consider possible tests of this tentative identification: