

The Population of Galactic Planetary Nebulae

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We report first results from a study comparing directly observable properties of Galactic planetary nebulae with synthetic models for the PN population. In this way we avoid problems such as deriving distances for individual PN.

An example is the distinct anti-correlation of extinction and galactic latitude observed among the PN towards the interior of the Milky Way (top). This relation is independent of physical conditions in the nebulae, their state of evolution, and their spatial distribution in the Galaxy. The simulations (bottom) with various values for a constant opacity 'kappa' (a value of 20 corresponds to the standard $A_V = 1 \text{ mag/kpc}$) show that it depends only on the characteristics of interstellar extinction. The mean opacity is only about a quarter of the standard value, with a very large scatter. These data will be helpful to describe statistically the extinction in a typical galactic disk.

