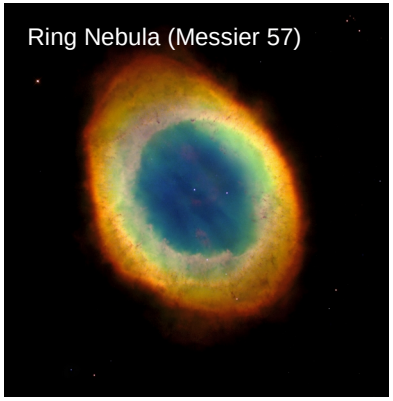
S-PLUS: An atlas of integrated Hα fluxes for planetary nebulae in the Magellanic Clouds

L. A. Gutiérrez-Soto, A. R. Lopes, A. V. Smith Castelli & F. R. Faifer
Instituto de Astrofísica de La Plata, CONICET-UNLP, Argentina

Galaxies Groups and Clusters III
May 15 - 19 2023, La Serena, Chile

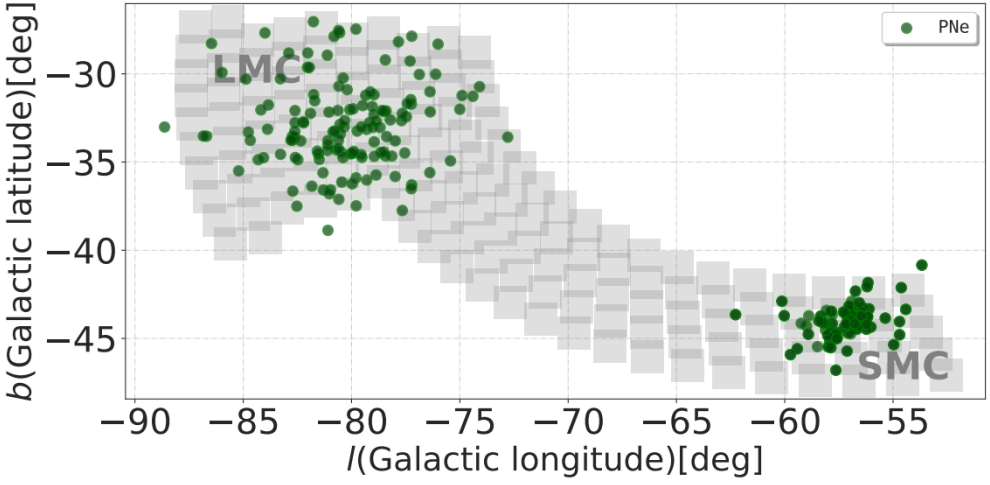
Context



What are planetary nebulae?

Planetary nebulae (PNe) are emission line nebulae that represent a short phase in the late evolution of low- and intermediate-mass stars.

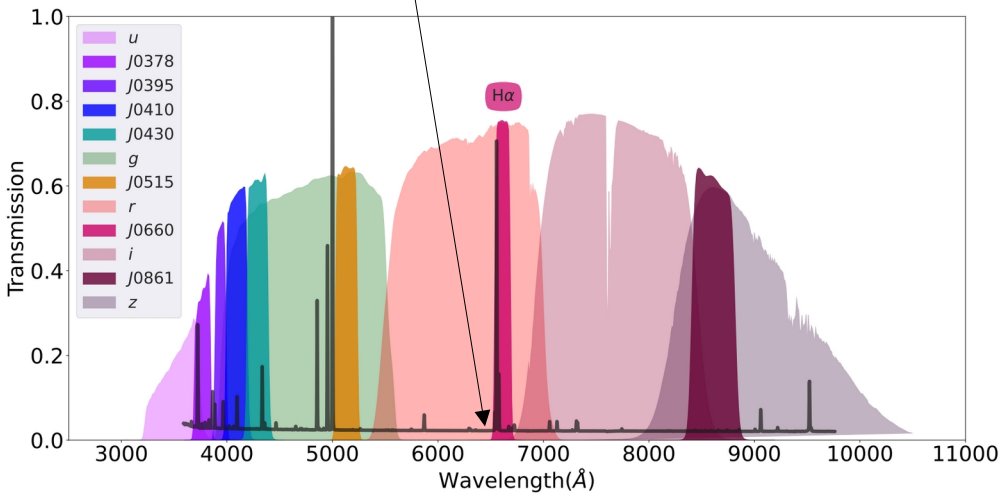
PNe in the Magellanic Clouds



The distribution of the planetary nebulae from the literature (green circles) in the Magellanic Clouds.

About S-PLUS:

Typical spectrum of a PN: the Hα and [N II] emission lines are detected by J0660 filter for sources with a redshift up to 0.015



*As part of its effort to map 9,000 square degrees of the Southern Hemisphere, the S-PLUS project (Mendes de Oliveira et al. 2019) has a crucial feature: images of the entire field captured using the Hα narrow-band **J0660** filter.*

Hα flux PNe with S-PLUS data

Extracting Hα flux from photometric data