

CSPN IN THE HASH DATABASE - INVESTIGATIONS AND INSIGHTS

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Until recently, only about 20% of all known PNe had an equivocally identified CSPN to help relate PN properties to the underlying properties of the CSPN. These are known to be extremely varied, encompassing a wide variety of stellar types and characteristics ranging from pop II Wolf-Rayet stars ([WR]), different kinds of white dwarfs (DA, DAO, DO), PG1159 stars, Weak emission line stars (WLES) and early and late O(H) and Of(H) stars. Determining the variation and fractions of the diverse population of CSPN is vital for understanding their host PNe and their morphologies, shaping mechanisms, energetics and the key role this important but brief phase of stellar evolution plays in Galactic chemical enrichment and the ISM mass budget. If we are to undertake such studies we must first be confident that any identified CSPN is actually the bona-fide progenitor for the surrounding nebula and also try to ensure we have uncovered as many CSPN as possible so they are properly representative of the overall CSPN population. HASH helps with this mission. HASH (Hong Kong/AAO/Strasbourg H-alpha PN catalogue) is a PNe mutliwavelength database of all currently known Galactic and Magellanic Cloud PNe that has provided a powerful, new resource for the community to study both PNe and their CSPN with over 500 users in more than 60 countries. In this talk I will present preliminary results on the independently derived Galactic CSPN population now available through HASH and make some comparisons to the findings with preliminary Gaia results and make some brief comments on what this means for the study of CSPN in general.