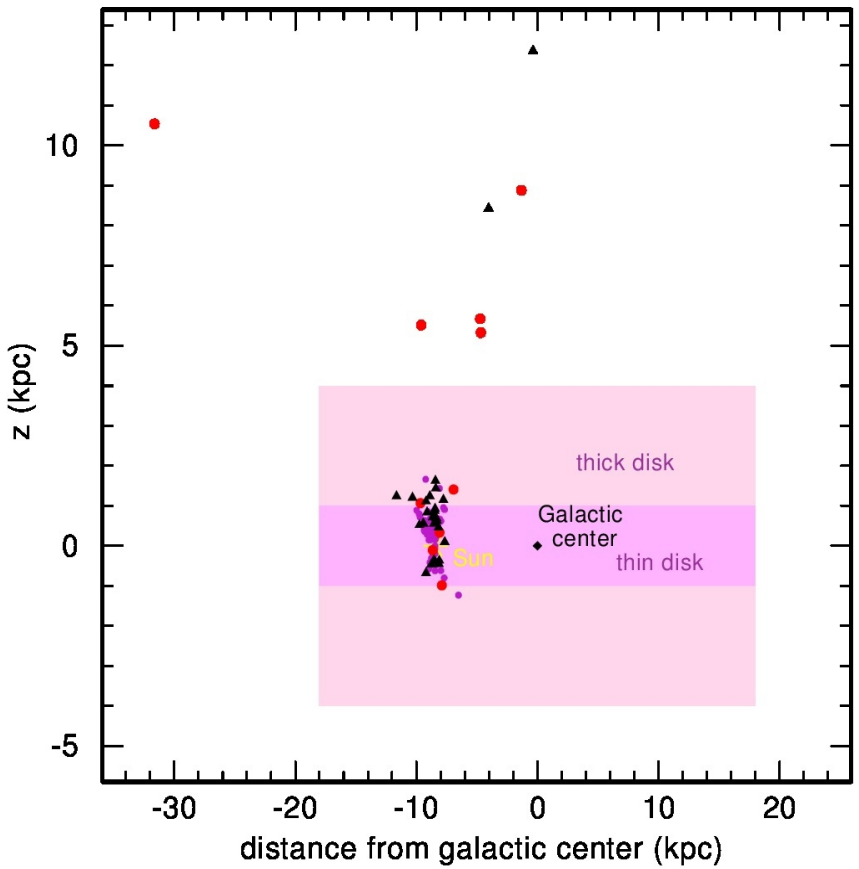
The Galactic Distribution of Hot (Pre-) White Dwarfs



Galactic distribution of the hottest, H-deficient white dwarfs.

→ About 95% of all stars is expected to end as a white dwarf

→ Investigations on their Galactic distribution offer the opportunity to the determine the fraction of the total mass of our Galaxy contained in the form of thick-disk and halo white dwarfs.

→ Galactic distribution of white dwarfs studied only for relatively cool and by that nearby white dwarfs.

→ The hottest (pre-) white dwarfs allow us to study a huge space volume due to their high luminosities.

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

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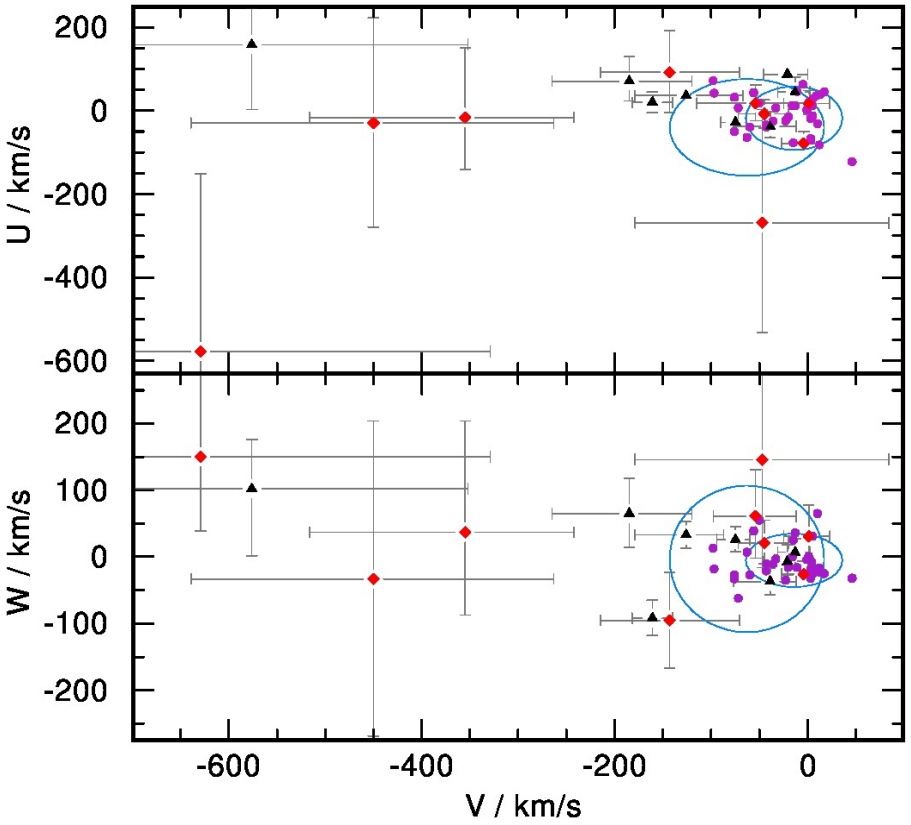

Space velocities calculated for eight PG1159 stars, nine O(He) stars, and 35 DO WDs.The two ellipses indicate the 2 σ error bars for the thin and the thick disks.

→ Classification of white dwarf membership in the Galactic populations is possible based on kinematic criteria

→ Criteria deduced from a suitable sample of main-sequence stars (Kordopatis et al. 2011)

→ Preliminary results suggest that a substantial fraction of the H-deficient (pre-)white dwarfs might be part of the thick disk (up to 40%) and Galactic halo (up to 50%) .