

DERIVING THE AGE OF AN INDIVIDUAL WD: SDSS, BOK, USNO, AND BAYES

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We report on ancient white dwarfs found in the proper motion survey we are conducting at the Bok and USNO telescopes. To date we have surveyed approximately 2000 square degrees of sky and identified numerous WDs with $T_{\text{eff}} \leq 6000$. A subset of these WDs are high velocity objects that most likely belong to the Galactic halo population. Where possible, we are acquiring trigonometric parallaxes to constrain the WD masses. We apply a new Bayesian modeling approach to these WDs that consistently incorporates precursor evolutionary timescales, the initial-final mass relation, WD interior and atmosphere models, and uses the observed magnitudes, distances, etc. to derive the distribution of WD age as a function of uncertainties in the observational parameters.