

## Brown Dwarfs as Clocks: The Age Distribution in the Solar Neighborhood

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Brown dwarfs cool for their entire lifetimes and, when they are young, overlap in luminosity with low-mass stars. This creates the mass-age-luminosity degeneracy that usually muddles observations of the field population of such cool objects. However, it also presents an opportunity for precise age dating when mass and luminosity are measured. We have recently used Keck and CFHT to measure individual dynamical masses and luminosities for a large sample of brown dwarfs, allowing new tests of substellar evolution and demographics. Our results enable a novel direct determination of the age distribution of field brown dwarfs with masses of 30-70 MJup and spectral types of L4-T5. We determine a median age of 1.3 Gyr that is somewhat younger than previous work but consistent with our population synthesis modeling of a constant star formation history modulated by dynamical heating in the Galactic disk over the past 10 Gyr.

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