Evolved Solar Systems in Praesepe

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We search for evidence of dust disks around the 11 white dwarfs in the 625 Myr old Praesepe open star cluster using near-IR photometry extracted from the UKIDSS GCS, and supplemental images obtained with UFTI on UKIRT. The Praesepe white dwarfs are all H-rich, and have temperatures $14000 < T < 20000$K, placing them within the DAZ temperature regime. The frequency of metal-polluted white dwarfs and dust disks suggests we may have expected 25% (3 stars) to be DAZs (Zuckerman et al., 2003), and one third of these to have a detectable disk (Kilic & Redfield, 2007; Jura, 2008). However, we do not find any near-IR excess emission indicative of a dust disk at any of the Praesepe white dwarfs, and high resolution, high signal/noise optical spectroscopy reveals no Ca absorption characteristic of DAZs.