The WISE InfaRed Excesses around Degenerates (WIRED) Survey

D. W. Hoard[1], J. Debes[2], S. Wachter[1], D. T. Leisawitz[2], and M. Cohen[3]

[1]*Spitzer Science Center, California Institute of Technology, USA* [2]*NASA's Goddard Space Flight Center, USA*
[3]*Monterey Institute for Research in Astronomy, USA*

The Wide-field Infrared Survey Explorer (WISE) is a NASA medium class Explorer mission that was launched on 14 Dec 2009. WISE is mapping the entire sky at 3.4, 4.6, 12, and 22 microns with 5-sigma point source sensitivities of approximately 0.08, 0.1, 1, and 5 mJy, respectively. As of mid-May 2010, approximately 70% of the sky has been surveyed and approximately 20% of the sky has been archived. Prior to the first public release of WISE data planned for Spring 2011, a number of early science verification projects are being carried out by the WISE Science Team. We present here an overview of the WISE InfraRed Excesses around Degenerates (WIRED) Survey, which has the goals of characterizing white dwarf (WD) stars in the WISE bands, confirming objects known to have IR excess from past observations (2MASS, Spitzer, UKIDSS, etc.), and revealing new examples of WDs with IR excess that can be attributed to unresolved stellar or sub-stellar companions, or debris disks. We are utilizing target lists drawn primarily from the McCook & Sion White Dwarf Catalog and the Sloan Digital Sky Survey (SDSS) DR4 White Dwarf List. With the current 20% archived sky coverage, we have obtained preliminary WISE detections of approximately 530 white dwarfs from the SDSS list. We present an overview of the characteristics of these detected WDs in the WISE bands, as well as a comparison with other IR observations. A companion presentation (Debes et al.) will discuss specific results from some of our target detections.