Tuesday, September 18th @ 1:30 PM in COE 796

RECONS Math: How to Build a Map of the Sun's Neighborhood

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ABSTRACT:

Since 1994, RECONS (www.recons.org, REsearch Consortium On Nearby Stars) has been discovering and characterizing the Sun's neighbors. Because of their proximity, nearby stars are natural locations to search for other solar systems. The stars provide increased fluxes, larger astrometric perturbations, and higher probabilities for eventual resolution and detailed study of planets than similar stars at larger distances. As we continue to build a three-dimensional map of stars near the Sun, we are now beginning to add planetary companions orbiting the stars. Examination of the nearby stellar sample will reveal the prevalence and structure of solar systems, as well as the balance of Jovian and terrestrial worlds. These are the stars and planets that will ultimately be key in our search for life elsewhere. Of key importance throughout our studies are the mathematical applications used to make sense out of the data.

