

WEDNESDAY

MARCH 30

4:00 P.M.

RM 118 NSH

Refreshments
in Rm 202 NSH
@ 3:30 pm

The Galactic Planetary Census

Professor Greg Laughlin

University of California – Santa Cruz

It is now possible to place our Solar System into the broader context provided by the thousands of extrasolar planetary systems that have been discovered in recent years. Indeed, we now know that our solar system is unusual for at least two reasons: (1) It is completely empty within Mercury's orbit, and (2) it harbors a Jupiter-mass planet on a 5 AU, nearly circular orbit. I will discuss recent theoretical work that suggests that these two odd features of the solar system may be connected, and I will make startling predictions of what will be found as exoplanetary detection techniques improve.

Background: Batygin, K., & Laughlin, G. 2015 "Jupiter's decisive role in the inner Solar System's early evolution", Proceedings of the National Academy of Sciences, vol. 112, issue 14, pp. 4214-4217.