

Astrophysics Seminar

Tuesday, February 21, 2017



How to Peek Inside Stars

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Yale University

Stars are opaque. We cannot use the usual means available to astrophysicists to probe stellar interiors. However, there is one window that is available to us, and that is seismology. Helioseismology, the study of the Sun using solar oscillations has revolutionized our knowledge of the internal structure and dynamics of the Sun. It has also allowed us to use the Sun as a laboratory to study properties of stellar plasma. Additionally it showed that the “solar neutrino problem” is not a solar physics problem. The 2015 Nobel Prize went to the head of the group that confirmed that fact. We are now beginning to be able to seismic studies of other stars, i.e., perform asteroseismic analyzes. We are helped in this endeavor by data from space-based missions such as CoRoT, Kepler and K2. In this talk I shall to introduce you to the physics behind helio- and asteroseismology and show some of the interesting results that we have obtained.



3:30pm in CAS 502. Refreshments served at 3:15pm in CAS 500.

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Next Week
George Ricker
MIT