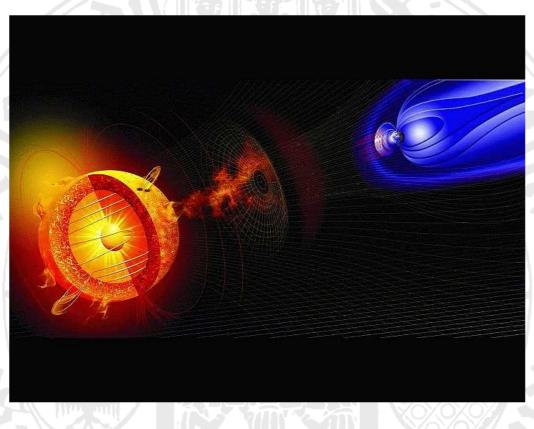


Fakultät für Mathematik und Physik _ Albert-Ludwigs-Universität Freiburg

PHYSIKALISCHES KOLLOQUIUM

AM 7. MAI 2012 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



THE SIZE AND THE SHAPE OF THE SUN: DO THEY VARY?

PROF. JEFFREY KUHN

INSTITUTE FOR ASTRONOMY, UNIVERSITY OF HAWAII

Knowledge of the Sun's shape has been used to test theories of gravity while its ***apparent*** variability is sensitive to the mechanisms that cause the thus far unexplained 11-year solar cycle. Solar astrometry from space became possible more than a decade ago with a satellite called SOHO but recently with a new experiment called the Helioseismic and Magnetic Imager onboard the Solar Dynamics Observatory satellite, a new regime in precision astrometry has become possible. Tiny variations in the dynamic solar shape at the level of a few microarcseconds have been measured and new ways of understanding the dynamical solar structure are being explored. This talk will introduce my audience to the new field of precision solar astrometry.