Extrasolar Planets and Alternative Earths

Abstract:

During the past two decades, approximately 500 extrasolar planets have been discovered, and the pace of discovery is increasing exponentially. Refined detection techniques have begun to resolve increasingly Earth-like bodies in increasingly Earth-like orbits. From the perspective of a geophysicist, Dr. Aster will summarize what is presently known about geological, geochemical, and hydrological processes on Earth, Mars, and Venus, and will extrapolate to the possible geophysics of extrasolar planets, including implications for geology, hydrology, and life.

Bio of Richard Aster:

Richard Aster is Professor of Geophysics and Department Chair of the Department of Earth and Environmental Science at New Mexico Tech. His research concentrates on applying seismological methods to study volcanoes, earthquake, glacial, and ocean processes, and to image and interpret the rich structure of Earth's mantle and its processes. He is the Principal Investigator of the IRIS PASSCAL Instrument Center at New Mexico Tech, a National Science Foundation supported facility and the world's preeminent center for supporting seismological studies with portable seismographs. He also presently serves as President of the Seismological Society of America.