Joint JIMAR/Oceanography Seminar

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"The University of Hawaii Sea Level Center"

The University of Hawaii Sea Level Center (UHSLC) represents an important thread in the history of oceanographic research at UH. The origin of the center dates to four decades ago when eminent UH physical oceanographer, Klaus Wyrtki, established a network of island tide gauges in the tropical Pacific as part of the North Pacific Experiment (NORPAX). Dr. Wyrtki's vision to use island sea level as a proxy for upper ocean heat content contributed to seminal advances in understanding of the El Niño Southern Oscillation and coupled ocean-atmosphere dynamics in the tropical Pacific. The number of UH-operated gauges grew over the course of various projects, and today, the UHSLC is an operational NOAA-funded center maintaining the largest network of tide gauges in the world – more than 80 gauges in total – and is one of the primary data centers in the WMO/IOC Global Sea Level Observing System (GLOSS). Research at the UHSLC focuses on the mechanisms and impacts of sea level change spanning multiple temporal and spatial scales from secular global trends to wave-induced inundation across fringing reefs. For those not familiar with the UHSLC, this seminar will provide a brief introduction to the history, current activities, and future direction of the center. We will then discuss a variety of ongoing research themes at the UHSLC with the goal of showing how the various mechanisms and temporal/spatial scales of sea level change affect what we know about historical sea level rise and how Pacific Islands will be affected by sea level rise in the future.