

Oceanography Seminar

Angelos Hannides

Postdoctoral Researcher
Department of Oceanography

“Calcareous reef sands: Recent advances and perspectives”

Abstract: Calcareous permeable sands are an integral part of coral reef systems and account for 40 % of the global continental shelf, yet advances in evaluating their role in global biogeochemical cycles and ecosystem function have been slow. The two major reasons for this lag are the poor applicability of observing and sampling methodologies used in finer-grained sediments, and the misinterpretation of early observations of permeable sediment geochemistry and microbiology. During this talk, I will discuss improvements and advances in observing, sampling and processing calcareous sands, especially those achieved here at the University of Hawaii, including in-situ minimally intrusive observations and measurements, targeted sampling, and validated modeling. I will illustrate how these have revised our understanding of the biogeochemical processes that characterize this extensive habitat, especially organic matter cycling, nutrient regeneration and primary productivity. Finally, I will speculate on the potential contribution of calcareous reef sands on biogeochemical cycling at the coral reef ecosystem level as well as on the global continental shelf as a whole.

Thursday
May 1, 2014
3:00 p.m.
MSB 100