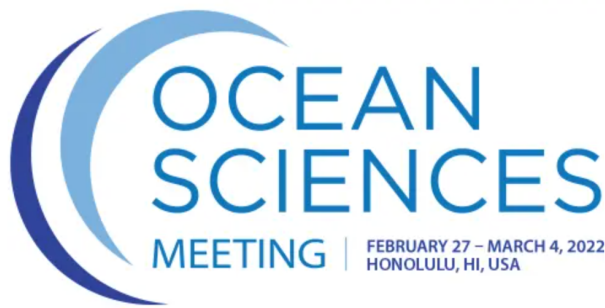


Call for Abstracts



Code: 305

Session: Lidar Technology for the Estimation of the Surface and Vertical Ocean Physical, Optical, and Biogeochemical Properties

Topic: Ocean Technologies and Observatories

Preferred Format: Hybrid: Sessions that will occur in Honolulu but have some form of interactivity with virtual participants.

Description: Remote sensing of ocean color has changed our vision of the distribution of phytoplankton and ocean carbon for the past forty years. These space-borne observations provide synoptic view of the concentrations of radiometric, bio-optical and biogeochemical parameters, continuously for the past twenty+ years at high spatial (hundreds to thousand meters) and temporal (~2 days) resolutions. However, these observations are limited to clear-sky, day-light, over clouds, high Sun elevation angles and are exponentially weighted toward the ocean surface. Furthermore, they require a processing step to remove the contribution of the atmosphere and the air-sea interface.

Active remote sensing can overcome these limitations of passive space-borne ocean color observations. One of these techniques is Lidar (Light Detection and Ranging). As an active remote sensing technique, it can overcome some of the above-mentioned limitations of passive observations. Despite several cases that demonstrated oceanic applications of ship-, air- and space-borne lidars, this tool has not received significant attention from the ocean color remote sensing community.

This session aims at developing an oceanic lidar community and at demonstrating the complementary between lidar and standard ocean color observations. To do that, several paths have to be considered: development of ship-borne lidars, lidar signal simulators, space-borne oceanic profiling lidars. During this session, we seek to present the current development of the instrumental, theoretical and applied research on oceanic profiling lidars.

All accepted sessions will be available to view at [2022 Ocean Sciences Meeting](#) website later this month. Abstract submissions will officially open later this summer and will close **15 September 2021**. Abstracts will not be accepted after this date.