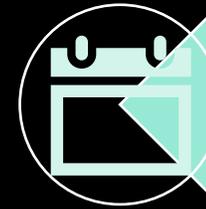


UCT-SANCOR Seminar by
Prof. Iwa Stachlewska
University of Warsaw, Poland



Potential for development of a
new space-borne lidar mission to
monitor ocean color



Monday,
2 Feb 2026



13h00 SAST



UCT Oceanography
Seminar Room

[In-person \(map\)](#) or [Online](#)

Overview

Oceanic Lidar Study (OLIS) explores the development of a dedicated ocean-profiling lidar mission to overcome the limits of passive ocean-color satellites, which cannot operate at night, under clouds, or reveal vertical structure. Building on recent successes of space-borne lidars such as CALIOP and ATLAS, OLIS proposes a dual-wavelength blue–green High Spectral Resolution Lidar capable of sub-meter vertical resolution in both clear and turbid waters. OLIS goal is to outline the scientific requirements and technological roadmap needed for the potential first oceanic lidar mission designed specifically to profile the upper ocean and improve understanding of marine bio-optical and biogeochemical properties.

Credits: OLIS received funding from European Space Agency (4000119961/16/NL/FF/mg).

About the speaker

Professor Iwa Stachlewska is Director of the Institute of Geophysics at the University of Warsaw in Poland. She leads the Remote Sensing Laboratory, specialising in atmospheric aerosol research using advanced lidar technology. Her career includes foundational experience at UCT's Marine Remote Sensing Unit. Her work focuses on the optical and microphysical properties of aerosols and their impact on climate. She collaborates with ESA and NASA, contributing significantly to global atmospheric monitoring.