



Introduction to Plankton, Aerosol, Cloud, Ocean Ecosystem (PACE) Hyperspectral Observations for Water Quality Monitoring

September 25, October 2, & October 9, 2024

10:00-11:30 (English) or 14:00-15:30 (Spanish) EDT (UTC-4)

This three-part introductory training will provide an overview of past and current hyperspectral sensors. Specifically, the training will provide information on NASA's PACE mission, its sensors and data products, webtools to access data, and software for processing hyperspectral data and water quality parameters derived from PACE/OCI. The training will also highlight some advantages and limitations of PACE data. This will be the first ARSET training focusing on the use of hyperspectral data for water quality applications.

Part 1: Introduction to the PACE Mission for Water Quality Monitoring

ARSET Trainers: Amita Mehta

Guest Instructors: Antonio Mannino

- Review past and current hyperspectral missions useful for water quality applications
- Identify key features of the NASA PACE hyperspectral mission satellite and instruments useful for monitoring water quality of large lakes and estuaries
- Identify advantages and limitations of using PACE/OCI data for water quality monitoring

Part 2: Overview, Access, and Analysis of PACE Ocean Color Data Products

ARSET Trainers: Amita Mehta

Guest Instructors: Morgaine McKibben

- Explore the current and planned PACE data products for water quality monitoring
- Identify how to access PACE/OCI level 1, 2, and 3 data
- Identify applications and the usability of PACE data for monitoring water quality
- Analyze and visualize available OCI Remote Sensing Reflectances and Level-2 and -3 water quality parameters using NASA's open source SeaDAS software



ARSET empowers the global community through remote sensing training.

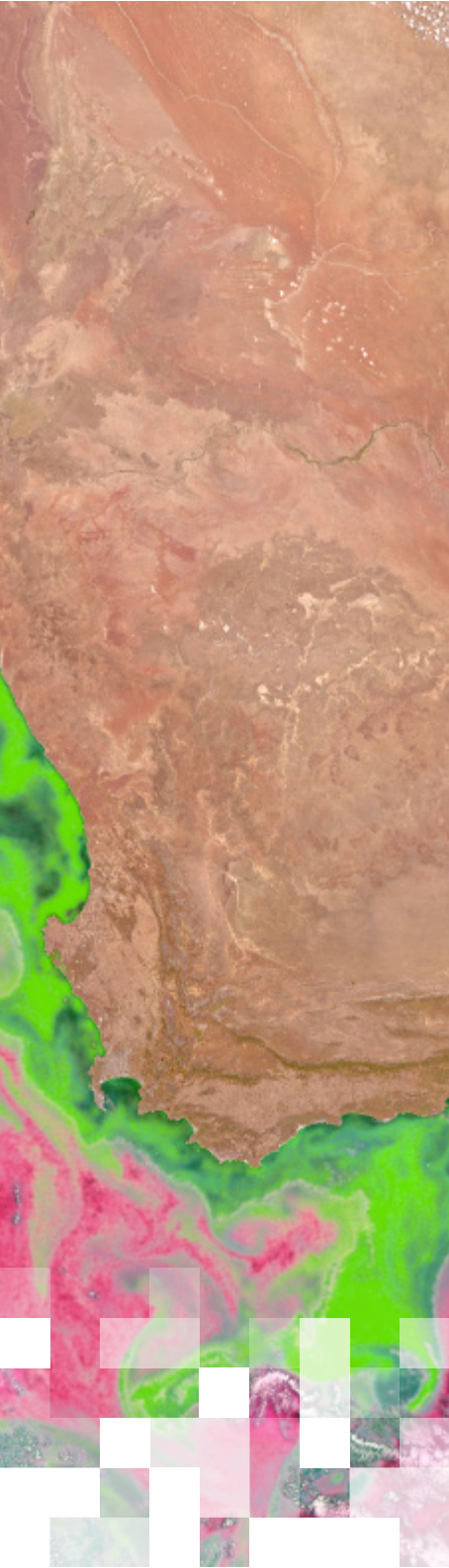


Part 3: Access and Visualization of PACE/OCI Data using Python/ Jupyter Notebook Software

ARSET Trainers: Amita Mehta

Guest Instructors: Carina Poulin and Anna Windle

- Access OCI Remote Sensing Reflectances and Level 2 and 3 Water Quality Parameters from EarthData using open source Python software/Jupyter Notebooks
- Visualize OCI Remote Sensing Reflectances and Level 2 and 3 Water Quality Parameters using open source Python software/Jupyter Notebooks
- Identify steps to customize the provided Jupyter Notebook software for other areas of interest and timeframes



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community through remote
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