**Validation of satellite sensors for ocean monitoring and related uncertainties**

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Satellite sensors for ocean monitoring, so called Ocean Color (OC) sensors, are used to measure concentrations of chlorophyll, mineral particles, to detect algal bloom conditions, which are dangerous for life in the ocean and human activities.  As sunlight propagates into the water and back to the top of the atmosphere (TOA), significant amount of light to the sensor comes from the scattering of light in the atmosphere on molecules and aerosols and this component of light should be accurately removed from the total signal. This process is called atmospheric correction and it is especially difficult in the coastal areas with different types of aerosols in the atmosphere.

To validate atmospheric correction models, the derived spectra of light coming from the ocean are compared with the measurements by the instruments installed on the ocean platforms, which measure such spectra near the ocean surface. The network of such instruments is operated by NASA and is called Aerosol Robotic Network for just measurements of aerosol parameters and AERONET-OC for measurements of atmospheric and ocean parameters.

The project includes the comparison of satellite and AERONET-OC data at several locations with different water and atmospheric conditions and evaluation of related uncertainties especially in the blue part of the spectra, where the uncertainties are the highest.