Wednesday, October 10
Poster Session 3
16:00–18:00

Poster 3

ATMOSPHERIC CORRECTION OVER TURBID WATER FOR GOCI-II: A PRELIMINARY STUDY

Atmospheric correction process plays an important role in ocean color remote sensing that estimates water reflectance at the surface from the top-of-atmosphere at satellite level by removing path reflectances mainly contributed from light scattered by the atmosphere. The atmospheric correction algorithm for the general ocean color sensors employs two near-infrared (NIR) bands to estimate aerosol radiances in visible wavelengths based on the black pixel assumption in NIR. However, the black pixel assumption is no more valid over turbid water due to a relatively strong backscattering of suspended particles in the water. Therefore, water reflectance models in NIR bands have generally been applied to iteratively separate aerosol radiances and water radiances in NIR. We describe this water reflectance model for the Second Geostationary Ocean Color Imager (GOCI-II) which will be following the GOCI mission. While the GOCI uses 660 nm band to estimate water reflectances at 745 and 865 nm, the GOCI-II can additionally use 620 and 709 nm band which makes it more advantageous for the estimationof NIR water reflectance. The reflectance model is preliminarily validated by simulation dataset generated by radiative transfer code.

Jae-Hyun Ahn, Korea Institute of Ocean Science and Technology, brtnt@kiost.ac.kr, https://orcid.org/0000-0002-2240-4562
Young-Je Park, Korea Institute of Ocean Science and Technology, youngjepark@kiost.ac.kr