



## **Estimating surface reflectance from Himawari-8/AHI reflectance channels Using 6SV**

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TOA (Top Of Atmospheric) reflectance observed by satellite is modified by the influence of atmosphere such as absorbing and scattering by molecular and gasses. Removing TOA reflectance attenuation which is caused by the atmospheric is essential. surface reflectance with compensated atmospheric effects used as important input data for land product such as Normalized Difference Vegetation Index (NDVI), Land Surface Albedo (LSA) and etc. In this study, we Second Simulation of a Satellite Signal in the Solar Spectrum Vector (6SV) Radiative Transfer Model (RTM) for atmospheric correction and estimating surface reflectance from Himawari-8/Advanced Himawari Imager (AHI) reflectance channels. 6SV has the advantage that it has high accuracy by performing the atmospheric correction by dividing the width of the satellite channel by 2.5 nm, but it is slow to use in the operation. So, we use LUT approach to reduce the computation time and avoid the intensive calculation required for retrieving surface reflectance. Estimated surface reflectance data were compared with PROBA-V S1 data to evaluate the accuracy. As a result Root Mean Square Error (RMSE) and bias were about 0.05 and -0.02. It is considered that this error is due to the difference of angle component and Spectral Response Function (SRF) of each channel.