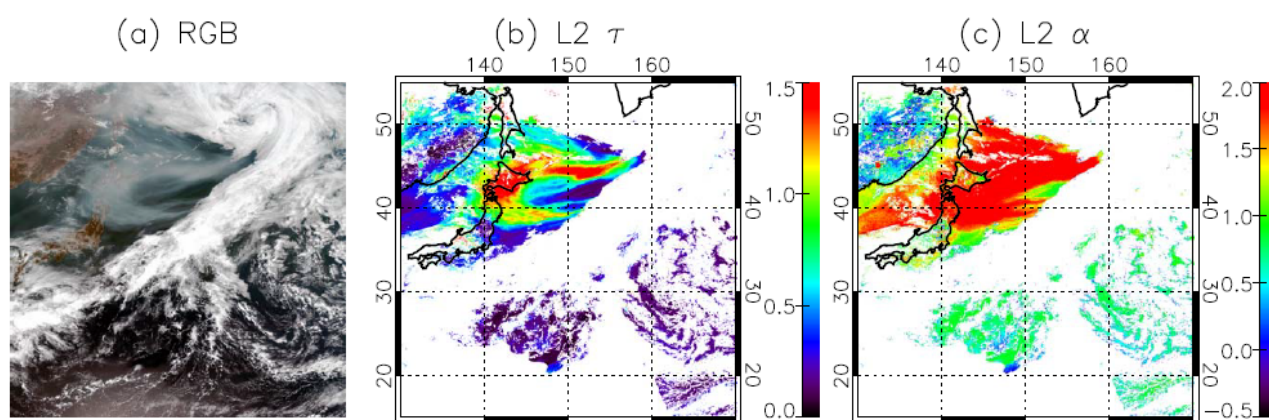
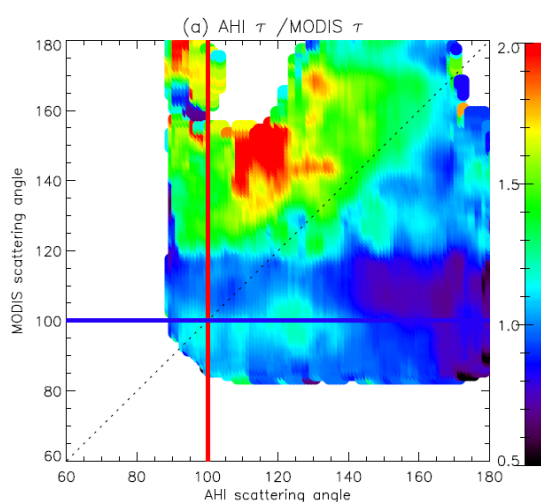


Yoshida, M., M. Kikuchi, T. M. Nagao, H. Murakami, T. Nomaki, and A. Higurashi, 2018: Common retrieval of aerosol properties for imaging satellite sensors. *J. Meteor. Soc. Japan*, **96B**, 193-209. <https://doi.org/10.2151/jmsj.2018-039>



↑ Figure 1. (a) RGB image and L2 (b) aerosol optical thickness and (c) Ångström exponent estimated from Himawari-8/AHI at 02 UTC on May 19, 2016.



← Figure 2. Ratio of aerosol optical thickness estimated from AHI to MODIS averaged over the light scattering angle bins for these two sensors. The dotted line shows the points where the scattering angle of AHI is identical to that of MODIS. The data are smoothed every 5 degree.

- We developed a common algorithm (common aerosol models and lookup tables, and automatic selection of the optimum channels) to retrieve aerosol properties for various satellite sensors over land and ocean.
- This method was applied to the Advanced Himawari Imager (AHI) on board the Japan Meteorological Agency's geostationary satellite Himawari-8, showing a continuous estimate of aerosol optical thickness over land and ocean (Fig.1).
- In addition, we applied our algorithm to MODIS onboard the Aqua satellite and compared the retrieval results to that obtained from the AHI (Fig.2). The comparison of the two retrievals using the common algorithm could evaluate the assumptions in the aerosol model (e.g., sphericity or size distribution).