



## **Snow cover detection based DWW method using Himawari-8/AHI data**

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The snow cover has a higher reflectance than other surface elements and plays a major role in regulating global surface temperature, such as heat exchange between earth's surface and the atmosphere, or an important role in maintaining global energy balance in global or regional terms. It is the largest single component of the cryosphere and distributed in more than 40 % of the northern hemisphere land area in winter. In addition, it is highly variability over time. In consideration of this feature, preceding research perform snow detection using satellite data, and snow detection using geostationary satellite data has better temporal resolution than other satellite data. In this study, snow cover detection was performed using Himawari-8/AHI data, geostationary satellite, based on the Dynamic Wavelength Warping (DWW) technique, which is a method of recognizing the change of reflectance according to wavelength. The accuracy of the snow cover data in this study was 94.78% for POD and 14.98% for FAR with VIIRS snow data. This accuracy is similar to the snow cover calculated by the previous research and advanced institutes.