

# **Validation of Directional Wave Spectrum from SAR Image using Buoy Data**

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## **Abstract**

A directional wave spectrum obtained from SAR image data is compared with a directly observed directional wave spectrum from buoy data. The SAR image was taken during winter storms in 1994, coincidentally with the buoy measurement near Marado island which is the southernmost island of Korea. In order to get a directional wave spectrum, the linear modulation transfer function is applied to the image intensity spectrum from SAR imagery and maximum entropy method to the buoy data, respectively. The directional wave spectrum from the SAR imagery shows very similar patterns in main wave system to the directional spectrum from buoy data.