

# SAR 画像と河川状況の比較

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## Comparison of SAR Images with Situation of a River

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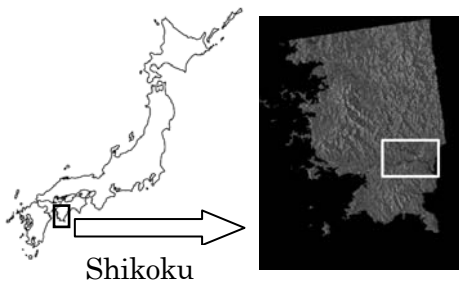
### Abstract

Space-borne SAR (Synthetic Aperture Radar) sensors can provide images of ground surface under all weather conditions in day and night. JAXA established a Working Group for flood disasters monitoring by using SAR sensors under the cooperation with local authorities in Japan. As members of the WG, authors apply ALOS/PALSAR L-band SAR amplitude imagery for monitoring river condition. In order to get basic information to make out the SAR images, we carried out comparison of SAR images with situation of the Shimanto River, Shikoku, Japan.

### 要旨

衛星搭載 SAR (合成開口レーダー) はマイクロ波を使用する能動型センサであるため、天候や夜・昼にかかわらず地上の詳細な画像を取得することができる。JAXA は SAR センサを用いた洪水災害観測のためのワーキンググループを設置し、地方自治体との連携のもとに実証実験を行っている。

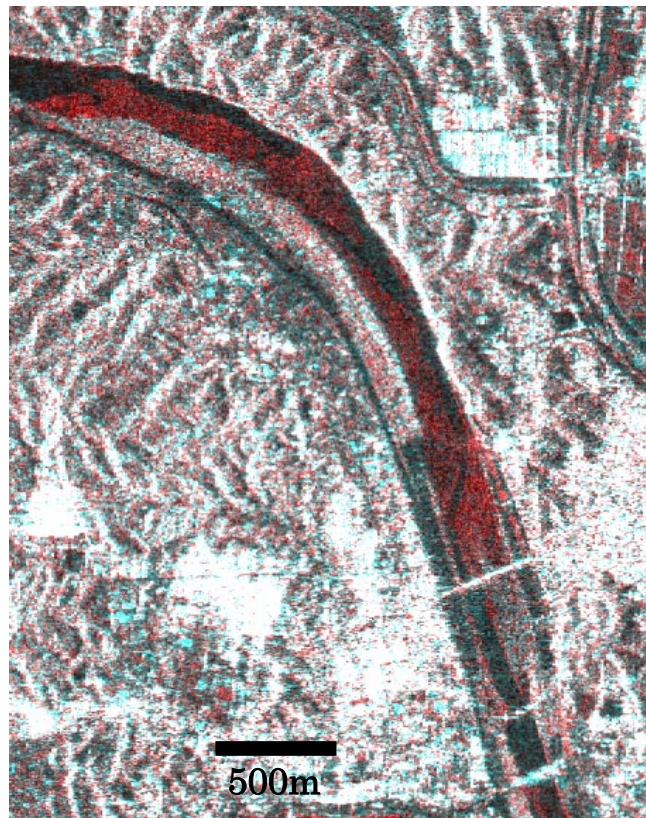
まず、SAR 強度画像の判読ための基礎として、高知県西部を流れる四万十川下流部を対象に実際 の状況との比較について報告する。



**Fig. 1. SI** Shimanto River

The west part of the Shikoku Island is shown by ALOS/PALSAR geo-coded amplitude image (85 km x 100 km) observed on 7 March 2008.

A rectangle depicts the downstream region of the Shimanto River.



**Fig. 2. Down Stream of the Shimanto River**

ALOS/PALSAR amplitude RGB composite image shows the change in the water coverage between Jan.1st, 2007 (Red) and July 4, 2007 (Green and Blue), when the water level became higher about 2.7 m.

Red portion was covered by water on July 4, 2007.