ピクセルオフセット解析における誤差 Errors in Pixel Offset Analysis

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We investigated the relation between the standard deviation of the offset estimation (σ_{offset}), the signal-to-noise ratio (SNR) and the standard deviation of the topographic height in the correlation window (σ_{topo}) using PALSAR amplitude image pairs which contain coseismic deformation signal associated with the 2008 Iwate-Miyagi Nairiku (Inland) Earthquake, Japan. We found that, (a) the σ_{offset} can be well explained as an exponential function of the SNR and (b) SNR is inverse proportional to the σ_{topo} at $\sigma_{topo} > 10m$. However no obvious relation was seen between SNR and σ_{topo} at $\sigma_{topo} < 10m$.



