

Monitoring of ground subsidence with InSAR

Midori Fujiwara[1]; Tomomi Amagai[1]; Akira Suzuki[1]; Kozin Wada[1]

[1] GSI

Geographical Survey Institute(GSI) monitor the ground subsidence in 16 areas with ALOS/PALSAR data by SAR interferometry(InSAR). We will show these results and the task of ground subsidence monitoring.

Until now, we detected ground subsidence of a few cm/yr in Tsugaru Heiya, Northern part of Kanto Heiya (Ibaraki pref.), Kujukuri Heiya, Osaka Heiya.

Though the ground subsidence which was more than 2cm was detected by the leveling data from 2007 to 2008 in Saga Heiya and Southern part of Kanto Heiya (Kanagawa pref.) (Ministry of Environment, 2008), we could not detect the subsidence in same areas by InSAR because of the orbit estimate error and the atmospheric contribution.

Therefore we suggest using both the leveling data and InSAR for ground subsidence monitoring and report actions toward the practical use.

Acknowledgement

GSI purchased PALSAR data under terms of MOU(Agreement on Cooperative Research Project) between JAXA and GSI. Copyright of PALSAR/ALOS data belongs to JAXA and METI.