

Detection of Land Subsidence in the Coastal Plain around the Ariake Sea by SAR Interferometry

Shigeki KOBAYASHI[1]; Shinya KUROKAWA[2]; Takashi OKUDA[3]; Koya Shimamura[4]

[1] Environment Conservation Sciences, Kyushu Tokai Univ.; [2] Kyushu Tokai Univ Graduate School of Engineering; [3] RCSVDM Center.Nagoya Univ; [4] Space Earth Information Technology, Kyushu Tokai Univ.

http://eec.ktokai-u.ac.jp/eisei_soku/index.html

Land subsidence in the coastal plain around the Ariake Sea was successfully detected by JERS-1 SAR interferometry (InSAR). The area and maximum amount of the subsidence, which was occurred in the Shiroishi Area during the droughty summer of 1994 due to the shortage of underground water for the rice paddies, detected by InSAR are consistent with the yearly leveling result by Saga Prefecture. This remarkable land subsidence in the Shiroishi area will be caused by the hollow underground structure which is reflected in the locally negative Bouguer anomaly.