

## Estimation of ground subsidence rate in Kawasaki, Central Japan, based on network adjustment with signal (3)

# Hiroyuki Yazawa [1], Yoichiro Fujii [1]

[1] NIPPO

<http://www.bremen.or.jp/nipposys/>

For the purpose of detecting ground subsidence, the leveling and GPS data are combined by the application of least-squares collocation. The empirical covariance function is determined from the result of traditional free network adjustment. Also, the error formula to determine weight for the GPS observation is determined by MINQUE. An integrated network adjustment is carried out by using the survey data of the leveling and GPS in Kawasaki City.