

## Three-dimensional density distribution of Osaka Plain

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In the Osaka Plain, the gravity survey have been carried out several ten years. The gravity data provided basement configuration based on the two-layer model. The government and self-government performed several seismic reflection surveys in the Osaka Plain for estimating of detailed basement configuration and physical properties to seismic hazard prevention. These seismic reflection results revealed basement configuration. In the south part of the plain, there were difference between the depth of the basement estimated by gravity analysis and seismic reflection surveys. This suggests the destiny of the sediment or basement of the north and the south part of the plain differ.

The gravity analysis to determine the density constrained the basement configuration based on the two-layered model show the difference of the density of the two part of the plain. In this study, we estimated the three dimensional density distribution constrained the basement configuration by inversion. The basement configuration were constructed by the many seismic survey results.