

Relationship between Distributions of Shallow Earthquakes and Gradients of Gravity Anomaly Field in and around the Focal Area of the 2016 Kumamoto Earthquake.

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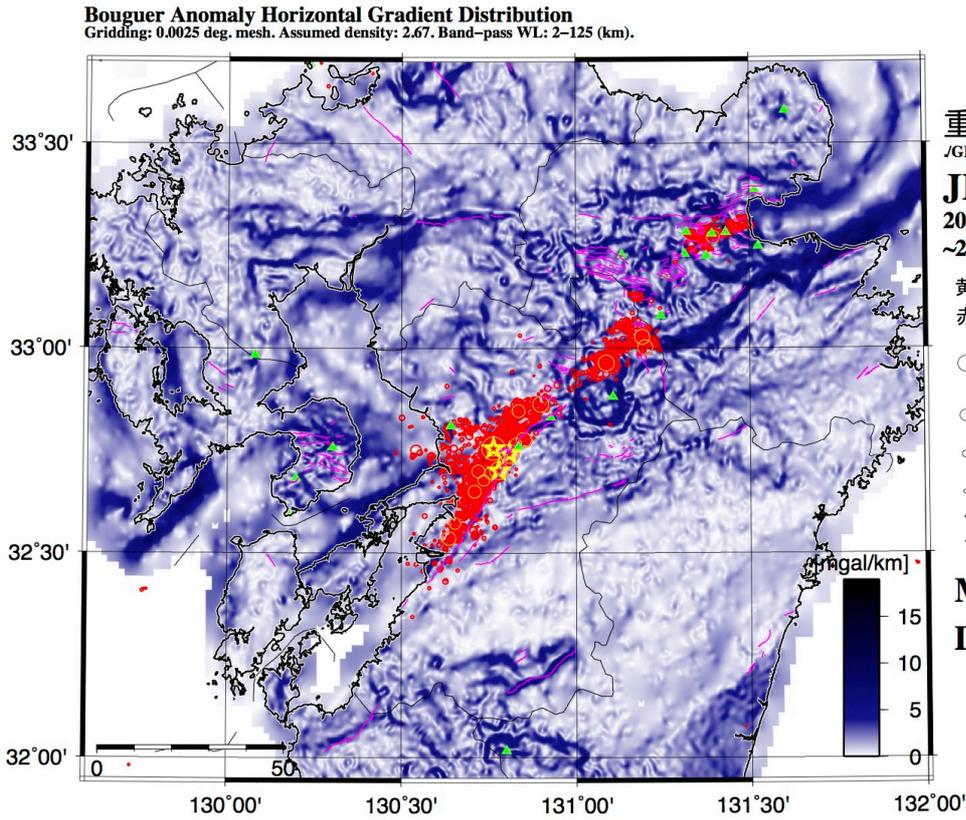
Relationship between distributions of shallow earthquakes and gradients of gravity anomaly field in and around the focal area of the 2016 Kumamoto Earthquake is investigated. In this session, we will present Bouguer anomaly maps, Bouguer anomaly horizontal gradient maps, and some graphs showing relations between gravity anomaly gradients and spatial distributions of hypocenters related to the 2016 Kumamoto Earthquake.

Zones with steep horizontal gradient of gravity anomaly field are presumably caused by faults bounding different density structures in the crust. On the other hand, most shallow earthquakes are supposed to be caused by dislocations at faults in the crust. From both presumptions, it follows that the distribution of epicenters should be overlapped with that of the steep gravity gradient zones. Kudo and Kono (1999) verified the overlap in Southwest Japan.

In the case of the 1995 Hyogo-ken Nanbu earthquake, however, very low seismicity along the steep gradient zone of gravity anomaly was followed by the mainshock (Kudo and Kono, 1999). The preliminary report for the case of the 2016 Kumamoto Earthquake will also be presented.

Keywords: 2016 Kumamoto Earthquake, gravity anomaly, seismicity

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速報
 2016年熊本地震
 と
 重力異常水平勾配分布
 /GRMapPortr_Kumamoto_EQ_L.ex

JMA
 2016.4.1
 ~2016.5.9

黄○: M5以上暫定
 赤○: M2以上暫定

- :M6
- :M5
- :M4
- :M3
- :M2
- :M1

M ≥ 2.0

D ≤ 25.0

黄☆: M6以上暫定

青☆: M5以上速報(精度よくない)