

Non-secular crustal deformation along plate coupling discontinuity

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We found a quasi-biannual component of crustal deformation of southwestern Shikoku by a time-series analysis of continuous GPS measurements. The same component is found at the sites in area around Beppu city in Kyushu, whereas no such temporal pattern is identified in other part of Shikoku, Kii peninsula and Chugoku. We have not found a physical explanation for the mechanism of this phenomena; it is suggested that this is related to the sharp spatial gradient of plate coupling along Nankai Trough in the area.