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Geodynamics in the Philippines-eastern Indonesia: Crustal deformation and plate subduction

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For determining complicated tectonics in the triple junction region between the Philippine Sea, the Australian and the Sundaland plates, we have implemented GPS campaign measurements every year since 1997. To estimate subduction style in the Moluca Sea, we used seismicity and gravity anomaly data in addition to the GPS velocity field. While a westward dipping slab exists in the northern part of the Moluca Sea, two main slabs that dips to the east and the west exist in the southern part. The subduction style in the Moluca Sea shows large variability from north to south.