

## Feature of tectonic landforms derived from strains and dip-slip distribution pattern induced by strike-slip fault activities

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It is important to understand transition of tectonic landforms derived from fault activities for the long-term safety assessment of geological environment. In the strike-slip faults, the upthrown sides is, in general, located in the area on the fault block in the relative strike-slip motion on a faulted block (dip-slip distribution along a strike-slip fault; Nakata and Goto, 1998) Here we tried to represent the fault-related tectonic landforms by numerical analysis of crustal deformation.

The study area is around the Median Tectonic Line active fault system (MTL), that is a typical strike-slip fault, in Shikoku, southwest Japan. We made the fault model from surface fault traces according to Goto and Nakata(2000). Modeled faults are Kawakami Fault(eastern part from Sakuragi Bend), Okamura Fault, Ishizuchi Fault, Hatano Fault, Sangawa Fault, Ikeda Fault (western part until Sakai Pass). Three different fault dips were given to examine the difference of vertical displacement amount distribution. Slip of each fault model was decided based on Tsutsumi and Goto(2006). Then we calculated vertical displacements, dilatation and strain by use of the software 'Coulomb'(Toda et.al.,2005; Lin and Stein,2004), which implements uniform isotropic elastic properties in an elastic halfspace following Okada(1992).

We are examining the validity of fault model based on the comparison between the result of calculation and geographical features along active faults.