

Fundamental studies about the development of tectonic movement simulator:Northeastern Japan arc

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Finite element method is being used widely in the engineering field to compute stress and deformation. We tried to analyze large-scale crustal deformation using this technique. The crustal structure profile of the northeastern part of Japan was modeled as a two-dimensional viscoelasticity finite element method model. Calculation area is an east and west direction 2000 km, depth 700 km. The model that actual crustal structure was simplified is composed by crust of the Japan islands, crust of the Japan sea, the oceanic crust on the Pacific side, mantle, Pacific plate.