

What does stress information inferred from geological data mean?

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On the geological time scale (100,000-1,000,000 years), the slip sense and directions of the faults can be changed under different stress fields, such as inversion tectonics in the eastern margin of the Japan Sea. Therefore, the main source of crustal deformation including the faulting is the crustal stress, and it is necessary to understand the spatial and temporal heterogeneity of the crustal stress field. In other words, it is necessary to assume the temporal and spatial changes of the crustal stress field to understand the fault motion and the evaluation of fault activity in the geological time scale.

In this presentation, I introduce the case studies of the stress tensor inversion around the Japanese islands on the stress heterogeneities estimated from the geological data, and I discuss about meaning of stress information inferred from the geological data.

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