

T043-004

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## DEM Simulation of Structural Development Processes-1; DEM Simulator

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Recent understandings on rheological behavior of the continental lithosphere have made possible to model the deformation of the lithosphere using analogue materials. In particular, structural deformation (e.g. folds and faults) within the brittle upper crust has been analyzed by analogue experimental modelling using granular materials such as dry cohesionless sand. This type of physical experiments using granular materials (e.g. sandbox) can also be done as numerical simulation (digital modelling) on the computer with the Discrete Element Method (DEM). This talk focuses on the DEM simulator we have developed, as an introduction of our three talks using the simulator.