Application the particle method in problems of mechanics deformable media

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Abstract

© Published under licence by IOP Publishing Ltd.The work implemented method of deformation of ground-based particle method, which is a collection of mineral grains, which are linked to some system of forces on the contact areas between the mineral particles. Two-parameter potential Lennard-Jones and it is modified version were selected for describing the behavior of ground. Some model problems of straining layer of ground in the gravity field was decided. The calculations were performed on a heterogeneous computing cluster, on each of the seven components that were installed on three GPU AMD Radeon HD 7970.