عنوان مقاله:

Modeling of large frictional contact problems using augmented-Lagrange method

نویسندگان:

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خلاصه مقاله:

In this paper, the three-dimensional large deformation frictional contact is developed for simulation of contact problems based on the node to surface contact technique. The Coulomb friction law is used to simulate the friction between two bodies by the use of augmented-Lagrange method. It is shown that the augmented- Lagrange technique significantly improves the imposing constraints on contact surfaces rather than penalty method. A double-surface cap plasticity model is employed together with the nonlinear contact friction algorithm within the framework of large FE deformation in order to predict the density and stress distributions during powder compaction. Finally, the numerical schemes are examined for accuracy and efficiency in modeling of a tablet pressing.

کلمات کلیدی:

Frictional contact, Node to surface, Large deformation, Augmented–Lagrange technique

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