

The Role of Multiple Shear Bands in Deformation of Granular Materials

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The patterning of shear bands in granular materials is subject to extensive research nowadays, as one of the fundamental features of their behaviour. There is no agreement between many researchers, what are the physical reasons for this kind of localised deformation and how it should be modelled in theory. Existing experimental data are often difficult to interpret and new experimental ideas are necessary to explain the phenomenon in a proper way. Some such ideas are proposed to be discussed and compared with previously used techniques. Assumptions of several theoretical models, used to describe strain localisations, are also discussed in this light.

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