

PREFACE

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*CMES Special Issue on Contact Mechanics in the Engineering Sciences III:
Contact Modelling in the Geosciences*

The seminal work of C.A. Coulomb can be regarded as the origin of the study of mechanics of particulate media. The developments in the area of particulate mechanics have been applied to a variety of fields ranging from materials engineering to geomechanics. Specifically in the area of geomechanics, the constitutive theories that are used to describe mechanics of particulate media have undergone significant advances and these theories have used to examine a wide class of problems in the geosciences ranging from failure of earth masses and landslides, geotechnical problems of soil-geomaterial interaction, stability problems in rock mechanics and a range of other problems in environmental geomechanics. The advanced constitutive models, which describe geoparticulate behaviour also takes into consideration the both fully saturated and unsaturated pore structures. This Issue is devoted to research contributions that cover topics such as hydro-mechanical influences on failure of natural earth slopes, role of uncertainty on the mechanics movement of large boulders, viscoplastic fragmentation ice sheets during interaction with stationary structures and interaction of fragments with Coulomb contact, viscoplastic interactions between buried structures and rock masses and the influences of capillary mechanisms on the behaviour of granular media. Each topic has important applications to the understanding of complex interactions that are governed by influences of contact mechanics.

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