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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Front Cover; Table of contents; Preface; Obituary; Committee members; Reviewers; PLENARY LECTURES; Measuring stiffness of soils in situ; Strain localization in porous materials with spatially varying density and degree of saturation; Consolidation-induced transport of contaminants in compressible porous media; The Great East Japan Earthquake Disaster and integrated earthquake simulation for earthquake hazard and disaster estimate; Ground improvement in transport geotechnics - from theory to practice; Carbon dioxide injection into deep aquifers: A geomechanical perspective Parameter and model identification using the particle filter for geotechnical applicationsCharacterization of geotechnical variability - a multivariate perspective; Finite element analysis of tunnel excavation and ground improvement techniques employing a new constitutive model for shotcrete; A theory of plasticity with generalized hardening

for natural geomaterials under mechanical and environmental loading: Constitutive modeling and numerical implementation; Geomaterial plasticity and thermodynamic stability of equilibrium
GENERAL SESSIONS: Computational advances in numerical and analytical methodsPenetration simulation for an open caisson using mesh-free SPH method; Simulation of granular materials under continuously varying intermediate principal stress ratio using DEM; Assessment of applicability of the material point method in offshore geotechnical engineering; Numerical assessment on some preconditioners for elasto-plastic geotechnical finite element analysis; Application of the generalised- method in dynamic analysis of partially saturated media
Local calibration of MEPDG rut models: Oklahoma's experience from an instrumented pavement sectionDiscontinuity layout optimization with adaptive node refinement; Decision of the concrete parameters and fracture analysis of concrete for interactive analysis of soils and concrete structures; High Performance Computing preconditioners for the efficient solution of geomechanical models; A numerical approach for modelling the ploughing process in sands; Development and its validation of Rigid Plastic Moving Particle Simulation method; Material point method simulation of triaxial shear tests
The effect of consolidation path on undrained behaviour of sand - a DEM approachA new stability analysis method of slopes considering progressive failure; Numerical implementation of a non-local Mohr-Coulomb model; A numerical study of the penetration test at constant rod velocity; Numerical simulation of spudcan penetration using coupled Eulerian-Lagrangian method; Computational and reliability aspects of micro-geomechanics; Numerical study on the influence of traditional soil foundation on the stability of masonry structure in Angkor with NMM-DDA; Constitutive modelling
Analytical solution of a dynamical systems soil model

Sommario/riassunto

Computer Methods and Recent Advances in Geomechanics contains the proceedings (abstracts book 472 pages + full paper USB-drive 2052 pages) of the 14th International Conference of the International Association for Computer Methods and Advances in Geomechanics (Kyoto, Japan, 22-25 September, 2014). The contributions cover computer methods, material modeling and testing, applications to a wide range of geomechanical issues, and recent advances in various areas that may not necessarily involve computer methods, including: - Development and usage of new materials; - Constitutive modeling of materia