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| Nota di contenuto | <p>""ROCK MECHANICS:NEW RESEARCH""; ""ROCK MECHANICS:NEW RESEARCH""; ""CONTENTS""; ""PREFACE""; ""RESEARCH AND REVIEW STUDIES""; ""WAVE-ASSOCIATED SEABED BEHAVIOUR NEAR SUBMARINE BURIED PIPELINES""; ""Abstract""; ""Introduction""; ""Background""; ""General Theory of Soil Adaptation to a Loading""; ""Wave-Seabed Interaction""; ""Uncoupled Consolidation Models""; ""Elasticity Theory for Impervious Solids""; ""Potential Flow Theory""; ""Heat Conduction Theory""; ""Coupled Two-Phase Consolidation Models""; ""Quasi-Static Consolidation Theory""; ""Semi- and Fully-Dynamic Consolidation Models""</p> <p>""Wave-Seabed-Pipeline Interaction""""Uncoupled Consolidation Models""; ""Coupled Two-Phase Consolidation Models""; ""Quasi-Static Soil Models""; ""Semi-Dynamic Soil Models""; ""Experimental Studies""; ""Scope of Current Study""; ""Three-Dimensional Boundary Value Problem""; ""Boundary Value Problem: Seabed Soil Consolidation""; ""Governing Equations""; ""Boundary Conditions""; ""Boundary Value Problem: Small-Amplitude Progressive Water Waves""; ""Three-Dimensional Finite Element Model""; ""Finite Element Model""; ""Spatial Discretization: Finite Element Mesh""; ""Temporal Discretization""</p> <p>""Validation of Numerical Model""""Verification against an Analytical</p> |

Solution"; ""Verification against Experimental Data""; ""Wave-Induced Seabed Behaviour around Pipeline""; ""Principal Effective Stresses and the Maximum Shear Stress""; ""Parametric Study""; ""Influences of Ocean Wave Properties""; ""Wave Obliquity""; ""A. Three-Dimensional Geometry-Based Influences""; ""B. Influences of Three-Dimensionalities on Amplitudes of Soil Responses""; ""Wave Period""; ""Water Depth""; ""Influences of Seabed Soil Properties""; ""Soil Shear Modulus""; ""Soil Permeability""
""The Degree of Saturation""""Influences of Trench and Pipeline Geometries""; ""Trench Width""; ""The Trench Depth""; ""Pipeline Diameter""; ""Wave-Associated Seabed Instabilities""; ""Soil Shear Failure""; ""Soil Liquefaction""; ""Parametric Study""; ""Three-Dimensionalities of Ocean Waves""; ""Influences of Seabed Soil Properties""; ""Modulus of Soil Shear Stiffness""; ""Soil Permeability""; ""The Degree of Saturation""; ""Influences of Trench and Pipeline Geometries""; ""Trench Depth""; ""Trench Width""; ""Pipeline Diameter""; ""Influences of Ocean Wave Properties""; ""Wave Period""
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""Conclusions""; ""Future Research Directions""; ""References""; ""STRESS AND SCALE-DEPENDENCY OF HYDRO MECHANICAL PROPERTIES OF FRACTURED ROCKS""; ""Abstract""; ""1. Introduction""; ""1.1. Fracture Systems and REV Concept""; ""1.2. Objectives""; ""2. Fracture System Analysis and DFN Model Generation""; ""2.1. Fracture System Data Analysis""; ""2.2. DFN Model Generation""; ""3. A Basic Study on Scale and Stress Effects - Approaches and Results""; ""3.1. The Discrete Element Approach""
""3.2. Constitutive Equation of Anisotropic Elastic Solids and the Compliance Tensor""

Sommario/riassunto

This work examines the hydraulic characterization of fractured rocks, with specific reference to the fluid flow in single fractures, the interpretation of hydraulic tests, the geometrical characterisation and modelling of fracture networks.
