1. Record Nr. UNINA9910480214703321

Titolo	Fluid flow and transport in porous media : mathematical and numerical treatment : proceedings of an AMS-IMS-SIAM Joint Summer Research Conference on Fluid Flow and Transport in Porous Media, Mathematical and Numerical Treatment, June 17-21, 2001, Mount Holyoke College, South Hadley, Massachusetts / / Zhangxin Chen, Richard E. Ewing, editors
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , [2002] ©2002
ISBN	0-8218-7885-9
Descrizione fisica	1 online resource (538 p.)
Collana	Contemporary mathematics, , 0271-4132 ; ; 295
Disciplina	620.1/16
Soggetti	Porous materials - Permeability - Mathematical models Transport theory - Mathematical models Fluid dynamics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Contents""; ""Preface""; ""A new approach to upscaling for two-phase flow in heterogeneous porous media""; ""Modeling fractures as interfaces for flow and transport in porous media""; ""A family of higher-order Eulerian-Lagrangian localized adjoint methods for advection-diffusion equations""; ""Algorithmic aspects of a locally conservative Eulerian-Lagrangian method for transport-dominated diffusive systems""; ""A streamline front tracking method for two- and three-phase flow including capillary forces"" ""Adaptive and formfree identification of nonlinearities in fluid flow from column experiments""""""Overall behaviour of fractured porous media versus fractures' size and permeability ratio""; ""Hysteresis and upscaling in two-phase flow through porous media""; ""Simulation of biobarrier-protozoa interaction in porous media""; ""Mixed discontinuous FE methods and their applications to two-phase flow in porous media""; ""Two-phase immiscible flow with the viscous drag in

naturally fractured reservoirs""

""Mixed finite element methods for multiphase flow in petroleum reservoirs with multiple wells""""An acceleration procedure for the spectral element ocean model formulation of the shallow water equations""; ""Relations between phase mobilities and capillary pressures for two-phase flows in fractured media""; ""Parameter estimates for high-level nuclear transport in fractured porous media""; ""Overlapping grids for welltest analysis""; ""Upscaling of biological processes and multiphase flow in porous media""

""A numerical simulation of multicomponent gas flow in porous media by projection methods""""Recent developments on modeling and analysis of flow of miscible fluids in porous media""; ""A simple model for scale up error""; ""Conservative front tracking in one space dimension""; ""BEM with collocation for the heat equation with Neumann and mixed boundary values""; ""Applications of the control volume function approximation method to reservoir simulations""; ""Analysis of 1-D moment equations for immiscible flow""; ""Locally optimal pumping and treatment rates in uncertain environments""

""A general multigrid framework for a class of perturbed problems""""" Modeling horizontal wells using hybrid grids in reservoir simulations""; ""A multiblock mixed finite element method for 2D and 3D elliptic problems on mixed unstructured grids and its parallelization""; ""Network flow model studies and 3D pore structure""; ""Pore scale network modelling of gas slippage in tight porous media""; ""The calculation of relative permeability by history matching and Beth network model""; ""Comparison between pore-level and porous medium models for natural convection in a non-homogeneous enclosure""

""New models for predicting temperature-dependent viscous effects on flow through porous media""