1. Record Nr. UNINA9910774600303321

Titolo	Junior scholastic
Pubbl/distr/stampa	[New York, NY, etc.], : [Scholastic Inc., etc.]
Descrizione fisica	1 online resource
Disciplina	051
Soggetti	English language - Composition and exercises Anglais (Langue) - Composition et exercices Flags - 1940-1950 Periodical periodicals. Periodicals. Périodiques.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Published in Pittsburgh, Sept. 1937-May 1939; Dayton, O., Sept. 1939-<May 1940> Editorial office, New York. "For the upper elementary grades and junior high schools." Editors: Sept. 1937-Feb. 19, 1940, M.R. Robinson; Feb. 26, 1940-<May 1940> Jack Lippert.
Sommario/riassunto	Includes a few songs, with music.

2. Record Nr. UNINA9910818260103321

Autore	Huang Haibo (Engineering professor)
Titolo	Multiphase lattice Boltzmann methods : theory and application / / Haibo Huang, Michael C. Sukop, Xi-Yun Lu
Pubbl/distr/stampa	Chichester, [England] : , : Wiley Blackwell, , 2015 ©2015
ISBN	1-118-97134-5 1-118-97145-0 1-118-97144-2
Descrizione fisica	1 online resource (390 p.)
Disciplina	530.132
Soggetti	Lattice Boltzmann methods Multiphase flow Fluid dynamics Fluid dynamics - Mathematical models
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 and index.
Nota di contenuto	Cover; Title Page; Copyright; Contents; Preface; About the companion website; Chapter 1 Introduction; 1.1 History of the Lattice Boltzmann method; 1.2 The Lattice Boltzmann method; 1.3 Multiphase LBM; 1.3.1 Color-gradient model; 1.3.2 Shan-Chen model; 1.3.3 Free-energy model; 1.3.4 Interface tracking model; 1.4 Comparison of models; 1.5 Units in this book and parameter conversion; 1.6 Appendix: Einstein summation convention; 1.6.1 Kronecker function; 1.6.2 Lattice tensors; 1.7 Use of the Fortran code in the book; Chapter 2 Single-component multiphase Shan-Chen-type model; 2.1 Introduction 2.1.1 ""Equilibrium"" velocity in the SC model 2.1.2 Inter-particle forces in the SC SCMP LBM; 2.2 Typical equations of state; 2.2.1 Parameters in EOS; 2.3 Thermodynamic consistency; 2.3.1 The SCMP LBM EOS; 2.3.2 Incorporating other EOS into the SC model; 2.4 Analytical surface tension; 2.4.1 Inter-particle Force Model A; 2.4.2 Inter-particle Force Model B; 2.5 Contact angle; 2.6 Capillary rise; 2.7 Parallel flow and relative permeabilities; 2.8 Forcing term in the SC model; 2.8.1 Schemes to incorporate the body force; 2.8.2 Scheme overview; 2.8.3

Theoretical analysis

2.8.4 Numerical results and discussion 2.9 Multirange pseudopotential (Inter-particle Force Model B); 2.10 Conclusions; 2.11 Appendix A: Analytical solution for layered multiphase flow in a channel; 2.12 Appendix B: FORTRAN code to simulate single component multiphase droplet contacting a wall, as shown in Figure 2.7(c); Chapter 3 Shan and Chen-type multi-component multiphase models; 3.1 Multi-component multiphase SC LBM; 3.1.1 Fluid-fluid cohesion and fluid-solid adhesion; 3.2 Derivation of the pressure; 3.2.1 Pressure in popular papers (2D); 3.2.2 Pressure in popular papers (3D)

3.3 Determining Gc and the surface tension 3.4 Contact angle; 3.4.1 Application of Young's equation to MCMP LBM; 3.4.2 Contact angle measurement; 3.4.3 Verification of proposed equation; 3.5 Flow through capillary tubes; 3.6 Layered two-phase flow in a 2D channel; 3.7 Pressure or velocity boundary conditions; 3.7.1 Boundary conditions for 2D simulations; 3.7.2 Boundary conditions for 3D simulations; 3.8 Displacement in a 3D porous medium; Chapter 4 Rothman-Keller multiphase Lattice Boltzmann model; 4.1 Introduction; 4.2 RK color-gradient model

4.3 Theoretical analysis (Chapman-Enskog expansion)4.3.1 Discussion of above formulae; 4.4 Layered two-phase flow in a 2D channel; 4.4.1 Cases of two fluids with identical densities; 4.4.2 Cases of two fluids with different densities; 4.5 Interfacial tension and isotropy of the RK model; 4.5.1 Interfacial tension; 4.5.2 Isotropy; 4.6 Drainage and capillary filling; 4.7 MRT RK model; 4.8 Contact angle; 4.8.1 Spurious currents; 4.9 Tests of inlet/outlet boundary conditions; 4.10 Immiscible displacements in porous media; 4.11 Appendix A; 4.12 Appendix B Chapter 5 Free-energy-based multiphase Lattice Boltzmann model

Sommario/riassunto

Theory and Application of Multiphase Lattice Boltzmann Methods presents a comprehensive review of all popular multiphase Lattice Boltzmann Methods developed thus far and is aimed at researchers and practitioners within relevant Earth Science disciplines as well as Petroleum, Chemical, Mechanical and Geological Engineering. Clearly structured throughout, this book will be an invaluable reference on the current state of all popular multiphase Lattice Boltzmann Methods (LBMs). The advantages and disadvantages of each model are presented in an accessible manner to enable the reader to choose the