

CONTENTS

Introduction

T.M.M. Verheggen, P.C. Rem, and J.A. Somers	1
Green-Kubo Formulas for Staggered Transport Coefficients in CA - Fluids	
R. Brito and M.H. Ernst	10
Heat Conductivity in a Thermal LGCA	
M.H. Ernst, S.P. Das, and D. Kammann	19
Effects of Sound Modes on the VACF in Cellular Automaton Fluids	
Toyoaki Naitoh, M.H. Ernst, M.A. van der Hoef, and D. Frenkel	29
Hydrodynamic Behaviour of the Lattice Boltzmann Equation	
S. Succi, R. Benzi, A. Cancelliere, and M. Vergassola	39
Modified Lattice Gas Method for High Reynolds Number Incompressible Flows	
F.J. Higuera	49
Obtaining Numerical Results from the 3D FCHC-Lattice Gas	
J.A. Somers and P.C. Rem	59
Time Dependent Anomalous Diffusion for Flow in Multi-fractal Porous Media	
F. Furtado, J. Glimm, B. Lindquist, F. Pereira, and Qiang Zhang	79
Porous Media Flow on Locally Refined Grids	
R.H.J. Gmelig Meyling, W.A. Mulder, and G.H. Schmidt	90

Flow and Diffusion in Random Porous Media from Lattice Gas Simulations	
D. Jeulin	106
Lattice Gas Automata Simulations of Viscous Fingering in a Porous Medium	
J.F. Lutsko, J.P. Boon, and J.A. Somers	124
Darcy Flow in Porous Media: Cellular Automata Simulations	
J.M.V.A. Koelman and M. Nepveu	136
Cellular-Automata-Based Computer Simulations of Polymer Fluids	
J.M.V.A. Koelman	146