Cellular Automata, Modeling, and Computation

Barberousse, Anouk and Franceschelli, Sara and Imbert, Cyrille (2007) Cellular Automata, Modeling, and Computation. In *[2007] Models and Simulations 2 (Tilburg, NL)*.

Abstract

Cellular Automata (CA) based simulations are widely used in a great variety of domains, fromstatistical physics to social science. They allow for spectacular displays and numerical predictions. Are they forall that a revolutionary modeling tool, allowing for “ direct simulation ”, or for the simulation of “ the phenomenon itself ”? Or are they merely models "of a phenomenological nature rather than of a fundamental one ”? How do they compareto other modeling techniques? In order to answer these questions, we present a systematic exploration of CA ’ s various uses.

Keywords:	cellular automata, modeling, computation, simulation
Subjects:	General Issues: Models and Idealization
Conferences and Volumes:	[2007] Models and Simulations 2 (Tilburg, NL)
ID Code:	3579
Deposited By:	Barberousse, Anouk
Deposited On:	11 October 2007