Probability and time symmetry in classical Markov processes

Bacciagaluppi, Guido (2007) Probability and time symmetry in classical Markov processes.

Full text available as:
PDF - Requires a viewer, such as Adobe Acrobat Reader or other PDF viewer.

Abstract

Definitions of time symmetry and examples of time-directed behaviour are discussed in the framework of discrete Markov processes. It is argued that typical examples of time-directed behaviour can be described using time-symmetric transition probabilities. Some current arguments in favour of a distinction between past and future on the basis of probabilistic considerations are thereby judged to be unjustified.

Keywords:	probability, time symmetry, Markov processes, arrow of time
Subjects:	Specific Sciences: Probability/Statistics
ID Code:	3534
Deposited By:	Bacciagaluppi, Guido
Deposited On:	20 September 2007
Additional Information:	Submitted for publication in M. Suárez (ed.), Probabilities, Causes and Propensities in Physics (Springer, Synthese Library).