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Efficient parallel simulations of dynamic Ising spin systems. (English) Zbl 0642.65001
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Many of the important computational aspects of fundamental problems in Physical Sciences have been attracting much attention of late. Efficient handling of modelling and simulation, while solving problems calls for the discovery of apt and time-saving algorithms. There are seven sections: Introduction, Saturated algorithms, Examples, Super-saturation and the BKL algorithm, Collecting statistics, Performance and Conclusion. The paper demonstrates in explicit terms an effective parallel scheme for simulating continuous time Ising spin systems. The intimate contacts between several features of the basic spin physics as well as computational intricacies are carefully discussed, their being a very challenging mathematical problem also.

Reviewer: [P.Achuthan](#)

MSC:

[65C05](#) Monte Carlo methods
[65Y05](#) Parallel numerical computation
[81V25](#) Other elementary particle theory in quantum theory

Cited in **1** Review
Cited in **7** Documents

Keywords:

[simulation](#); [Saturated algorithms](#); [BKL algorithm](#); [Collecting statistics](#); [Performance](#); [continuous time Ising spin systems](#)

Full Text: [DOI](#)

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