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**Gibbs sampling in Bayesian networks.** (English) Zbl 0717.68086  
Artif. Intell. 46, No. 3, 351-363 (1990).

Summary: Posterior probabilities in Bayesian networks can be evaluated by stochastic simulation. It is shown that the stochastic simulation can be viewed as a sampling from the Gibbs distribution. This view is useful in (1) making statements about convergence of the simulation and *J. Besag* [*J. Roy. Statist. Soc., Ser. B* 36, 192-236 (1974; [Zbl 0327.60067](#))] finding the most likely instantiation of the Bayesian network.

**MSC:**

- 68T15 Theorem proving (deduction, resolution, etc.) (MSC2010)
- 60K35 Interacting random processes; statistical mechanics type models; percolation theory
- 68U20 Simulation (MSC2010)

Cited in **6** Documents

**Keywords:**

[probabilistic reasoning](#); [Gibbs sampling](#); [Bayesian networks](#); [stochastic simulation](#)

**Full Text:** [DOI](#)

**References:**

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