

Approximate Bayesian computation (ABC): advances and questions

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The lack of closed form likelihoods has been the bane of Bayesian computation for many years and, prior to the introduction of MCMC methods, a strong impediment to the propagation of the Bayesian paradigm. We are now facing models where an MCMC completion of the model towards closed-form likelihoods seems unachievable and where a further degree of approximation appears unavoidable. In this tutorial, I will present the motivation for approximative Bayesian computation (ABC) methods, the various implementations found in the current literature, as well as the inferential, rather than computational, challenges set by these methods.

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