Regenerative Markov Chain Monte Carlo
for Any Distribution

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Abstract: While Markov chain Monte Carlo (MCMC) methods are frequently used for difficult calculations in a wide range of scientific disciplines, they suffer from a serious limitation: their samples are not independent and identically distributed. Consequently, estimates of expectations are biased if the initial value of the chain is not drawn from the target distribution. Regenerative simulation provides an elegant solution to this problem. In this talk, we propose a simple regenerative MCMC algorithm to generate variates for any distribution.

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