

Concept questions

Discussion Week 8

Taking samples of random number ξ , which formula for direct sampling gives the probability distribution

$$f(x) = e^{-x}$$

for many samples?

a) $x \leftarrow e^{\xi}$

c) $x \leftarrow \xi e^x$

b) $x \leftarrow \log \xi$

d) $x \leftarrow \xi e^{\xi}$

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For Monte Carlo calculations, give the relationship between the number of particle histories, N , and the uncertainty, R ?

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$$R \propto \frac{1}{\sqrt{N}}$$