

## <<科学计算中的蒙特卡罗策略>>

### 图书基本信息

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作者 : J.S.Liu

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### 内容概要

An early experiment that conceives the basic idea of Monte Carlo computations is known as "Buffon's needle", first stated by Georges Louis Leclerc Comte de Buffon in 1777. In this well-known experiment, one throws a needle of length  $l$  onto a flat surface with a grid of parallel lines with spacing  $d$ . It is easy to compute that, under ideal conditions, the chance that the needle will intersect one of the lines is  $\frac{2l}{\pi d}$ . Thus, if we let  $p_N$  be the proportion of "intersections" in  $N$  throws, we can have an estimate of  $\frac{2l}{\pi d}$  as  $N$  increases to infinity.

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