Project

“Poisson process”

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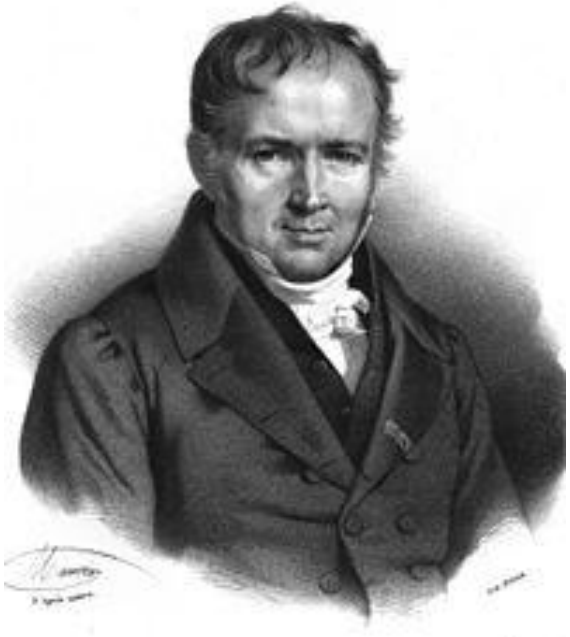

Counting process

1. $\{C(t), t \geq 0\}$
2. $C(t) \geq 0$, $C(t)=(0,1,2,....,n)$ for all $t \geq 0$
3. $C(t)$ is nondecreasing in t, $C(t)-C(s)$ equals the number of events in the time interval $(s, t]$, $s < t$

Poisson process

A Poisson process $\{N(t), t \geq 0\}$ is a counting process with the following additional properties:

1. $N(0) = 0$.

2. The process has stationary and independent increments.

3. $P(N(t) = n) = e^{-\lambda t} ((\lambda t)^n / n!)$, $n = 0, 1, 2, \ldots$.

Where do we use it?

Thank you for listening.