

Quiz 5.3: Poisson Process

Homogeneous Poisson Process

0 points possible (ungraded)

A spike train is generated by a homogenous Poisson process with rate 25Hz with time steps of 0.1 ms. Survivor function $S(t|\hat{t}) = \exp(-\int_{\hat{t}}^t \rho(t') dt')$

这道题很tricky，因为是poisson process，所以不是用 $T = 1/F$ 来算。

☐ The most likely interspike interval is 25 ms.

☒ The most likely interspike interval is 40 ms.

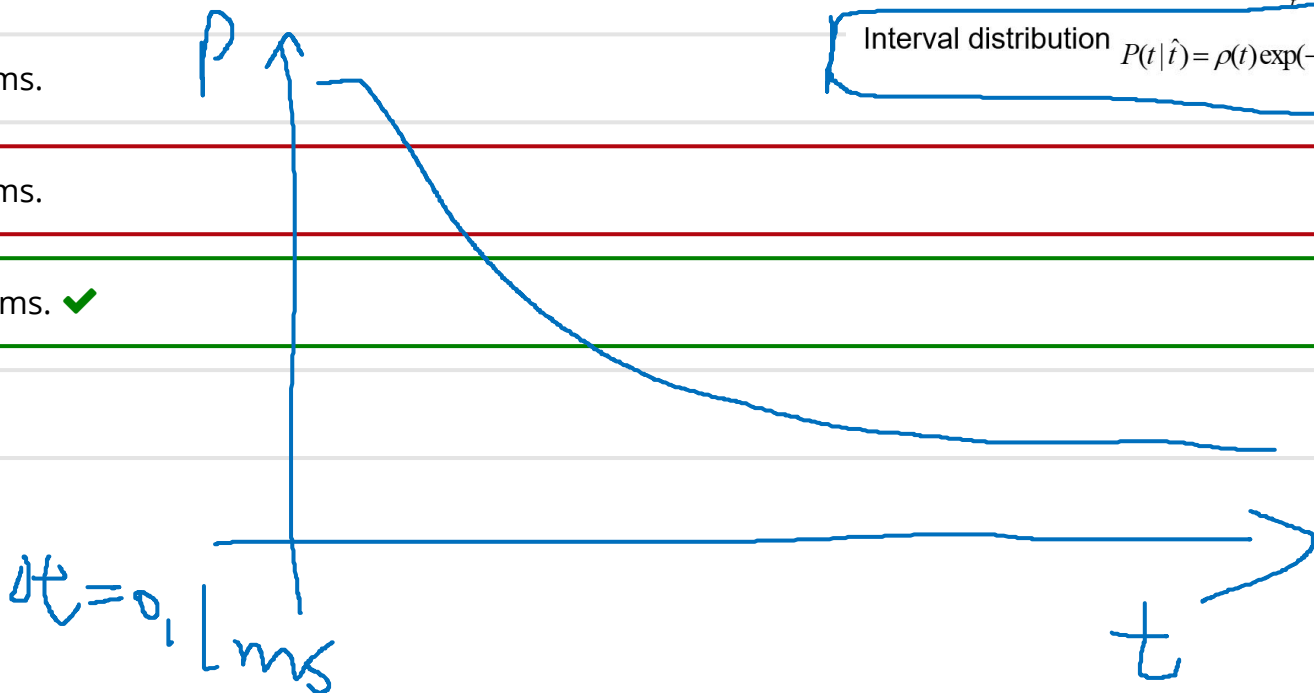
☐ The most likely interspike interval is 0.1 ms. ✓

☐ We cannot say.

✗

Submit

You have used 1 of 1 attempt



i Answers are displayed within the problem

Inhomogenous Poisson Process

0 points possible (ungraded)

A spike train is generated by an inhomogenous Poisson process with a rate that oscillates periodically (sine wave with 1Hz frequency) between 0 and 50Hz (mean 25Hz). A first spike has been fired at a time when the rate was at its maximum. Time steps are 0.1ms.

☐ The most likely interspike interval is 25 ms.

☐ The most likely interspike interval is 40 ms.

这里也是同样的道理，虽然速度不一样了，但是速度的变化是0~50，相比后面那一项的变化不是一个数量级的。

☐ The most likely interspike interval is 0.1 ms. ✓

☒ We cannot say.

✗

Submit

You have used 1 of 1 attempt

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Discussion

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