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02405 Probability

2003-10-13

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$$G(t)$$

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$$G(t) = e^{\int_0^t \lambda du}$$

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$$G(t) = e^{\int_0^t \lambda du} = e^{-\lambda t}$$

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$$G(t) = e^{\int_0^t \lambda du} = e^{-\lambda t}$$

the survival function of an exponential distribution.

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the survival function of an exponential distribution. The density of an exponential distribution with parameter(intensity)  $\lambda$  is  $f(t)$

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$$\lambda(t) = \frac{\lambda e^{-\lambda t}}{e^{-\lambda t}}$$

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the survival function of an exponential distribution. The density of an exponential distribution with parameter(intensity)  $\lambda$  is  $f(t) = \lambda e^{-\lambda t}$ . The hazard rate is found using (6) page 297

$$\lambda(t) = \frac{\lambda e^{-\lambda t}}{e^{-\lambda t}} = \lambda$$

and the proof is complete.