Probobility and Time
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Surpose one event will happen under binomial way, failed or not failed, ie failed or survived. Let denote P_f as Failed Probability, P_s denote Survival Probability

$$P_f = P(failed), then$$
$$P_s = P(survived) = 1 - P_f$$

Now let us assume this event (the Failed Probabilty) is a process, can be divied equally to n parts ($Part : n_1, n_2, ...n_n$), and each part has a same fail probability,

$$P_{n_i} = \frac{P_f}{n}$$

and we surpose the n parts process is independed to each other, then the Survival Probability is

$$P_s = (1 - \frac{P_f}{n})^n, when$$
$$n \to \infty$$

The Survival Probability with process $P_{s,process}$ will be

$$P_{s,process} = \lim_{n \to \infty} (1 - \frac{P_f}{n})^n$$
$$= e^{-P_f}$$

If the Failed Probability can be a process, so if we define this process is a time process, let $P_f = \rho t$, I will get the Exponential Survival Function

$$P_{s,process} = e^{-\rho t}$$

and the meaning of ρ will be

$$\rho = \frac{P_f}{t}$$

the Probability Failure Rate on the time.

Now We Look at Survival Weibull Function $F(t)$

$$F(t) = e^{-(\rho t)^\kappa}$$
$$\rho = \frac{P_f^{\frac{1}{\kappa}}}{t}$$

So we have another meaning for κ to how to change the Failure Probability

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Next The Probability and Space

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$$f(x) = e^{-\pi x^2}$$

Stephen Stigler definines the standard normal with variance$\sigma = \frac{1}{2\pi}$ ...