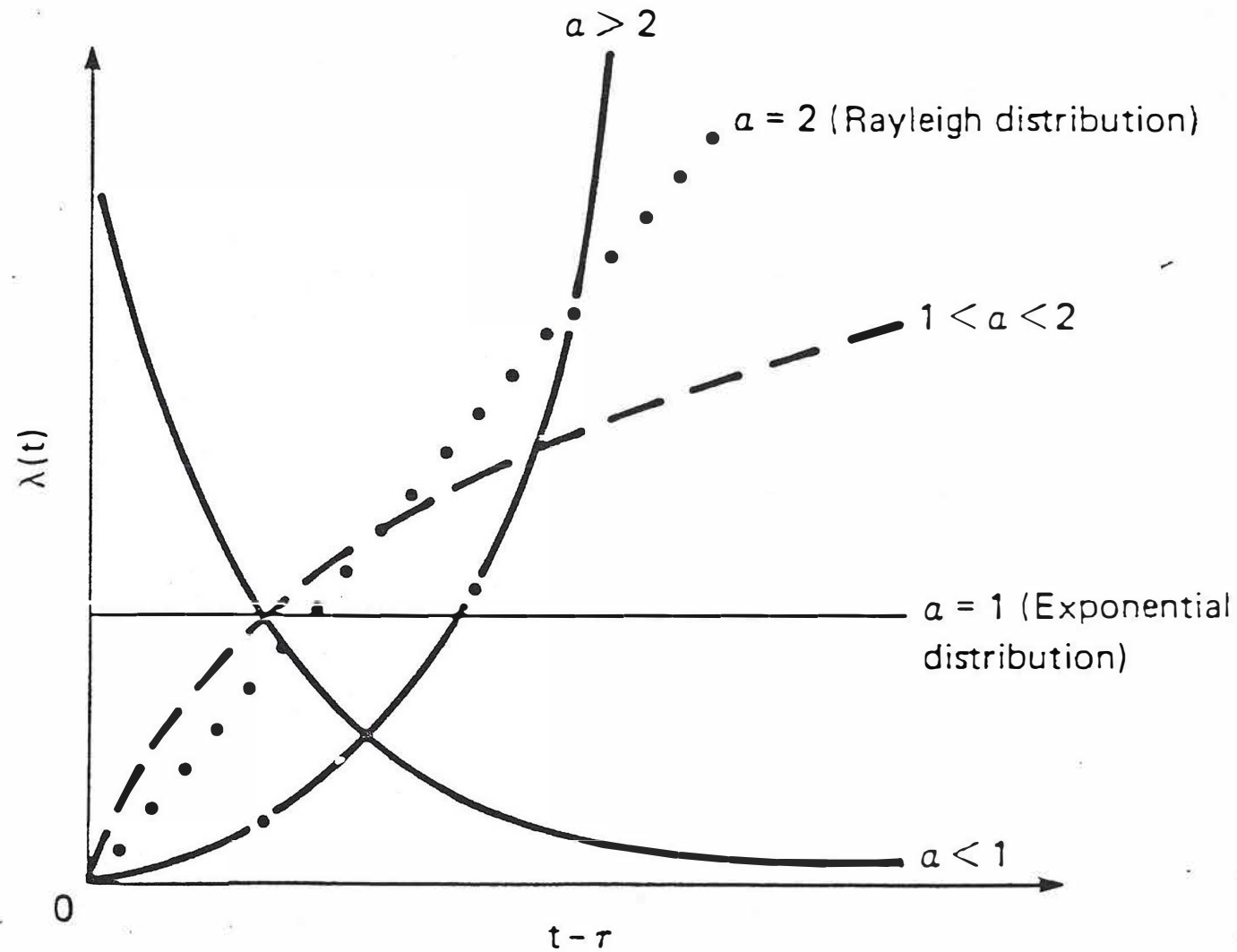


WEIBULL DISTRIBUTION

$$\lambda(t) = \frac{\alpha}{\beta} \left(\frac{t - \tau}{\beta} \right)^{\alpha-1}.$$

$$f(t) = \frac{\alpha}{\beta} \left(\frac{t - \tau}{\beta} \right)^{\alpha-1} \exp \left[- \left(\frac{t - \tau}{\beta} \right)^{\alpha} \right],$$
$$\alpha > 0, \quad \beta > 0, \quad 0 \leq \tau \leq t \leq \infty,$$

$$F(t) = 1 - \exp \{ - [(t - \tau)/\beta]^{\alpha} \}$$



Weibull distribution hazard rate. [From G. E. Apostolakis, *Mathematical methods of probabilistic safety analysis*, UCLA-ENG-7464 (September 1974).