

$$f(x) = \left( \frac{1}{\sqrt{2\pi} \cdot \text{shape} \cdot (x - \text{location})} \right) \exp \left[ \left( -\frac{1}{2 \cdot \text{shape}^2} \right) \log^2 \left[ \frac{x - \text{location}}{\text{scale}} \right] \right]$$