"RayleighRV(a)"

$$[x \mapsto 2\,a^2 x \mathrm{e}^{-a^2 x^2}]$$

$$t \mapsto t^2$$

Probability Distribution Function

$$f(x) = a^2 \mathrm{e}^{-a^2 x} \qquad 0 < x < \infty$$

$$t \mapsto \sqrt{t}$$

Probability Distribution Function

$$f(x) = 4\,a^2 x^3 \mathrm{e}^{-a^2 x^4} \qquad 0 < x < \infty$$

$$t \mapsto t^{-1}$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2}{x^3} \mathrm{e}^{-\frac{a^2}{x^2}} \qquad 0 < x < \infty$$

$$t \mapsto \arctan(t)$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2 \sin(x)}{(\cos(x))^3} \mathrm{e}^{-\frac{a^2 (\sin(x))^2}{(\cos(x))^2}} \qquad 0 < x < \pi/2$$

$$t \mapsto \mathrm{e}^t$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2 \ln(x)\, \mathrm{e}^{-a^2 (\ln(x))^2}}{x} \qquad 1 < x < \infty$$

$$t \mapsto \ln(t)$$

Probability Distribution Function

$$f(x) = 2\,a^2 \mathrm{e}^{2\,x - a^2 \mathrm{e}^{2\,x}} \qquad -\infty < x < \infty$$

$$t \mapsto \mathrm{e}^{-t}$$

Probability Distribution Function

$$f(x) = -2\,\frac{a^2 \ln(x)\,\mathrm{e}^{-a^2 (\ln(x))^2}}{x} \qquad 0 < x < 1$$

$$t \mapsto -\ln(t)$$

Probability Distribution Function

$$f(x) = 2\,a^2 \mathrm{e}^{-a^2 \mathrm{e}^{-2\,x} - 2\,x} \qquad -\infty < x < \infty$$

$$t \mapsto \ln(t+1)$$

Probability Distribution Function

$$f(x) = 2\,a^2\,(\mathrm{e}^x - 1)\,\mathrm{e}^{-a^2 \mathrm{e}^{2\,x} + 2\,\mathrm{e}^x a^2 - a^2 + x} \qquad 0 < x < \infty$$

$$t \mapsto (\ln(t+2))^{-1}$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2\left(\mathrm{e}^{x^{-1}} - 2\right)}{x^2}\mathrm{e}^{-\frac{1}{x}\left(\mathrm{e}^{2\,x^{-1}} a^2 x - 4\,\mathrm{e}^{x^{-1}} a^2 x + 4\,a^2 x - 1\right)} \qquad 0 < x < (\ln(2))^{-1}$$

$$t \mapsto \tanh(t)$$

Probability Distribution Function

$$f(x) = -2\,\frac{a^2 \mathrm{arctanh}\,(x)\,\mathrm{e}^{-a^2(\mathrm{arctanh}(x))^2}}{x^2-1} \qquad 0 < x < 1$$

$$t \mapsto \sinh\,(t)$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2 \mathrm{arcsinh}\,(x)\,\mathrm{e}^{-a^2(\mathrm{arcsinh}(x))^2}}{\sqrt{x^2+1}} \qquad 0 < x < \infty$$

$$t \mapsto \mathrm{arcsinh}\,(t)$$

Probability Distribution Function

$$f(x) = 2\,a^2 \sinh\,(x)\,\mathrm{e}^{-a^2(\sinh(x))^2} \cosh\,(x) \qquad 0 < x < \infty$$

$$t \mapsto \mathrm{csch}\,(t+1)$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2\,(-1+\mathrm{arccsch}\,(x))\,\mathrm{e}^{-a^2(-1+\mathrm{arccsch}(x))^2}}{\sqrt{x^2+1}\,|x|} \qquad 0 < x < 2\,\left(\mathrm{e}-\mathrm{e}^{-1}\right)^{-1}$$

$$t \mapsto \mathrm{arccsch}\,(t+1)$$

Probability Distribution Function

$$f(x) = -2\,\frac{a^2\,(\sinh\,(x)-1)\cosh\,(x)}{(\sinh\,(x))^3}\mathrm{e}^{-\frac{a^2(\sinh(x)-1)^2}{(\sinh(x))^2}} \qquad 0 < x < \ln\left(1+\sqrt{2}\right)$$

$$t \mapsto (\tanh\,(t+1))^{-1}$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2\left(-1+\operatorname{arctanh}\left(x^{-1}\right)\right)\mathrm{e}^{-a^2\left(-1+\operatorname{arctanh}\left(x^{-1}\right)\right)^2}}{x^2-1} \qquad 1 < x < \frac{\mathrm{e}+\mathrm{e}^{-1}}{\mathrm{e}-\mathrm{e}^{-1}}$$

$$t \mapsto \left(\sinh\left(t+1\right)\right)^{-1}$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2\left(-1+\operatorname{arcsinh}\left(x^{-1}\right)\right)\mathrm{e}^{-a^2\left(-1+\operatorname{arcsinh}\left(x^{-1}\right)\right)^2}}{\sqrt{x^2+1}\,|x|} \qquad 0 < x < 2\,\left(\mathrm{e}-\mathrm{e}^{-1}\right)^{-1}$$

$$t \mapsto \left(\operatorname{arcsinh}\left(t+1\right)\right)^{-1}$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2\left(-1+\sinh\left(x^{-1}\right)\right)\mathrm{e}^{-a^2\left(-1+\sinh\left(x^{-1}\right)\right)^2}\cosh\left(x^{-1}\right)}{x^2} \qquad 0 < x < \left(\ln\left(1+\sqrt{2}\right)\right)^{-1}$$

$$t \mapsto \left(\operatorname{csch}\left(t\right)\right)^{-1}+1$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2\operatorname{arccsch}\left(\left(x-1\right)^{-1}\right)\mathrm{e}^{-a^2\left(\operatorname{arccsch}\left((x-1)^{-1}\right)\right)^2}}{\sqrt{x^2-2\,x+2}} \qquad 1 < x < \infty$$

$$t \mapsto \tanh\left(t^{-1}\right)$$

Probability Distribution Function

$$f(x) = -2\,\frac{a^2}{\left(\operatorname{arctanh}\left(x\right)\right)^3\left(x^2-1\right)}\mathrm{e}^{-\frac{a^2}{\left(\operatorname{arctanh}(x)\right)^2}} \qquad 0 < x < 1$$

$$t \mapsto \operatorname{csch}\left(t^{-1}\right)$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^2}{\sqrt{x^2+1}\,(\operatorname{arccsch}(x))^3\,|x|}\mathrm{e}^{-\frac{a^2}{(\operatorname{arccsch}(x))^2}} \qquad 0 < x < \infty$$

$$t \mapsto \operatorname{arccsch}\left(t^{-1}\right)$$

Probability Distribution Function

$$f(x) = 2\,a^2\mathrm{e}^{-a^2(\sinh(x))^2}\cosh(x)\sinh(x) \qquad 0 < x < \infty$$