"ChiRV(a)"

$$[x \mapsto \frac{x^{a-1}\mathrm{e}^{-1/2\,x^2}}{2^{a/2-1}\Gamma\left(a/2\right)}]$$

$$t \mapsto t^2$$

Probability Distribution Function

$$f(x) = \frac{2^{-a/2}x^{a/2-1}\mathrm{e}^{-x/2}}{\Gamma\left(a/2\right)} \qquad 0 < x < \infty$$

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

Probability Distribution Function

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

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

Probability Distribution Function

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

$$t \mapsto \arctan\left(t\right)$$

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

$$t \mapsto \operatorname{arcsinh}(t)$$

Probability Distribution Function

$$f(x) = \frac{2^{-a/2+1} (\sinh(x))^{a-1} e^{-1/2\, (\sinh(x))^2} \cosh(x)}{\Gamma(a/2)} \qquad 0 < x < \infty$$

$$t \mapsto \operatorname{csch}(t+1)$$

Probability Distribution Function

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

$$t \mapsto \operatorname{arccsch}(t+1)$$

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

$$f(x) = \frac{2^{-a/2+1}\,(\sinh(x))^{a-1}\, e^{-1/2\,(\sinh(x))^2} \cosh(x)}{\Gamma(a/2)} \qquad 0 < x < \infty$$