"InvertedGammaRV(a,b)"

$$[x \mapsto \frac{x^{-a-1}}{\Gamma(a)\, b^a} e^{-\frac{1}{xb}}]$$

$$t \mapsto t^2$$

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

$$t \mapsto e^t$$

Probability Distribution Function

$$f(x) = \frac{(\ln(x))^{-a-1} b^{-a}}{x\Gamma(a)} e^{-\frac{1}{\ln(x) b}} \qquad 1 < x < \infty$$

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

Probability Distribution Function

$$f(x) = \frac{b^{-a}}{\Gamma(a)} e^{-\frac{xb\,a + e^{-x}}{b}} \qquad -\infty < x < \infty$$

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

Probability Distribution Function

$$f(x) = \frac{(-\ln(x))^{-a-1} b^{-a}}{x\Gamma(a)} e^{\frac{1}{\ln(x) b}} \qquad 0 < x < 1$$

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

Probability Distribution Function

$$f(x) = \frac{b^{-a}}{\Gamma(a)} e^{-\frac{-xb\,a + e^{x}}{b}} \qquad -\infty < x < \infty$$

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

Probability Distribution Function

$$f(x) = \frac{(e^{x}-1)^{-a-1} b^{-a}}{\Gamma(a)} e^{\frac{xb\,e^{x} - xb - 1}{(e^{x}-1) b}} \qquad 0 < x < \infty$$

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

$$f(x) = \frac{(\sinh(x))^{-a-1} b^{-a} \cosh(x)}{\Gamma(a)} \mathrm{e}^{-\frac{1}{\sinh(x) b}} \qquad 0 < x < \infty$$