$$filename := \text{"C:/LatexOutput/ChiGen.tex"}$$

$$\frac{x^{a\sim-1}\,e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}$$

"i is", 1,
" ---
----------"

$$g := t \rightarrow t^2$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{2^{-\frac{1}{2}a\sim}\,y\sim^{\frac{1}{2}a\sim-1}\,e^{-\frac{1}{2}y\sim}}{\Gamma\left(\frac{1}{2}a\sim\right)}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)"}, x^2, \text{"base"}, \frac{x^{a\sim-1}\,e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{2^{-\frac{1}{2}a\sim}\,x^{\frac{1}{2}a\sim-1}\,e^{-\frac{1}{2}x}}{\Gamma\left(\frac{1}{2}a\sim\right)}$$

"i is", 2,
" ---
----------"

$$g := t \rightarrow \sqrt{t}$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{4\,2^{-\frac{1}{2}a\sim}\,y\sim^{2a\sim-1}\,e^{-\frac{1}{2}y\sim^4}}{\Gamma\left(\frac{1}{2}a\sim\right)}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)"}, \sqrt{x}, \text{"base"}, \frac{x^{a\sim-1}\,e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{4\, 2^{-\frac{1}{2} a\sim} x^{2 a\sim - 1} e^{-\frac{1}{2} x^4}}{\Gamma\left(\frac{1}{2} a\sim\right)}$$

"i is", 3,
" --"

$$g := t \rightarrow \frac{1}{t}$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{y\sim^{-a\sim - 1} e^{-\frac{1}{2 y\sim^2}} 2^{-\frac{1}{2} a\sim + 1}}{\Gamma\left(\frac{1}{2} a\sim\right)}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)"}, \frac{1}{x}, \text{"base"}, \frac{x^{a\sim - 1} e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim - 1} \Gamma\left(\frac{1}{2} a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{x^{-a\sim - 1} e^{-\frac{1}{2 x^2}} 2^{-\frac{1}{2} a\sim + 1}}{\Gamma\left(\frac{1}{2} a\sim\right)}$$

"i is", 4,
" --"

$$g := t \rightarrow \arctan(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{\tan(y\sim)^{a\sim - 1} e^{-\frac{1}{2} \tan(y\sim)^2} 2^{-\frac{1}{2} a\sim + 1} \left(1 + \tan(y\sim)^2\right)}{\Gamma\left(\frac{1}{2} a\sim\right)}\right], \left[0, \frac{1}{2} \pi\right], [\text{"Continuous"}, \text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$"g(x)", \arctan(x), "base", \frac{x^{a\sim -1} e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim -1} \Gamma\left(\frac{1}{2} a\sim\right)}, "ChiRV(a)"$$

$$"f(x)", \frac{\tan(x)^{a\sim -1} e^{-\frac{1}{2} \tan(x)^2} 2^{-\frac{1}{2} a\sim +1} \left(1+\tan(x)^2\right)}{\Gamma\left(\frac{1}{2} a\sim\right)}$$

"i is", 5,
" ---"

$$g := t \rightarrow e^t$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{\ln(y\sim)^{a\sim -1} e^{-\frac{1}{2} \ln(y\sim)^2} 2^{-\frac{1}{2} a\sim +1}}{\Gamma\left(\frac{1}{2} a\sim\right) y\sim}\right], [1, \infty], ["Continuous", "PDF"]\right]$$

$$"l and u", 0, \infty$$

$$"g(x)", e^x, "base", \frac{x^{a\sim -1} e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim -1} \Gamma\left(\frac{1}{2} a\sim\right)}, "ChiRV(a)"$$

$$"f(x)", \frac{\ln(x)^{a\sim -1} e^{-\frac{1}{2} \ln(x)^2} 2^{-\frac{1}{2} a\sim +1}}{\Gamma\left(\frac{1}{2} a\sim\right) x}$$

"i is", 6,
" ---"

$$g := t \rightarrow \ln(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{e^{y\sim a\sim - \frac{1}{2} e^{2 y\sim}} 2^{-\frac{1}{2} a\sim +1}}{\Gamma\left(\frac{1}{2} a\sim\right)}\right], [-\infty, \infty], ["Continuous", "PDF"]\right]$$

$$"l and u", 0, \infty$$

$$"g(x)", \ln(x), "base", \frac{x^{a\sim -1} e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim -1} \Gamma\left(\frac{1}{2} a\sim\right)}, "ChiRV(a)"$$

$$\text{"f(x)"},\ \frac{e^{x a\sim - \frac{1}{2} e^{2x}}\, 2^{-\frac{1}{2} a\sim + 1}}{\Gamma\left(\frac{1}{2} a\sim\right)}$$

"i is", 7,
" --
----------"

$$g := t \rightarrow e^{-t}$$
$$l := 0$$
$$u := \infty$$
$$Temp := \left[\left[y\sim \rightarrow -\frac{2^{-\frac{1}{2} a\sim + 1}\, e^{-\frac{1}{2} \ln(y\sim)^2} \left(-\frac{1}{\ln(y\sim)}\right)^{-a\sim}}{\ln(y\sim)\, \Gamma\left(\frac{1}{2} a\sim\right) y\sim}\right], [0, 1], [\text{"Continuous"}, \text{"PDF"}]\right]$$
$$\text{"l and u"}, 0, \infty$$
$$\text{"g(x)"}, e^{-x}, \text{"base"}, \frac{x^{a\sim - 1}\, e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim - 1}\, \Gamma\left(\frac{1}{2} a\sim\right)}, \text{"ChiRV(a)"}$$
$$\text{"f(x)"}, -\frac{2^{-\frac{1}{2} a\sim + 1}\, e^{-\frac{1}{2} \ln(x)^2} \left(-\frac{1}{\ln(x)}\right)^{-a\sim}}{\ln(x)\, \Gamma\left(\frac{1}{2} a\sim\right) x}$$

"i is", 8,
" --
----------"

$$g := t \rightarrow -\ln(t)$$
$$l := 0$$
$$u := \infty$$
$$Temp := \left[\left[y\sim \rightarrow \frac{e^{-y\sim a\sim - \frac{1}{2} e^{-2 y\sim}}\, 2^{-\frac{1}{2} a\sim + 1}}{\Gamma\left(\frac{1}{2} a\sim\right)}\right], [-\infty, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$
$$\text{"l and u"}, 0, \infty$$
$$\text{"g(x)"}, -\ln(x), \text{"base"}, \frac{x^{a\sim - 1}\, e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim - 1}\, \Gamma\left(\frac{1}{2} a\sim\right)}, \text{"ChiRV(a)"}$$
$$\text{"f(x)"},\ \frac{e^{-x a\sim - \frac{1}{2} e^{-2x}}\, 2^{-\frac{1}{2} a\sim + 1}}{\Gamma\left(\frac{1}{2} a\sim\right)}$$

"i is", 9,

" --"

$$g := t \rightarrow \ln(t+1)$$
$$l := 0$$
$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{2^{-\frac{1}{2}a\sim+1}\left(e^{y\sim}-1\right)^{a\sim-1}e^{-\frac{1}{2}e^{2y\sim}+e^{y\sim}-\frac{1}{2}+y\sim}}{\Gamma\left(\frac{1}{2}a\sim\right)}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

$$\text{"g(x)"}, \ln(x+1), \text{"base"}, \frac{x^{a\sim-1}e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{2^{-\frac{1}{2}a\sim+1}\left(e^{x}-1\right)^{a\sim-1}e^{-\frac{1}{2}e^{2x}+e^{x}-\frac{1}{2}+x}}{\Gamma\left(\frac{1}{2}a\sim\right)}$$

"i is", 10,

" --"

$$g := t \rightarrow \frac{1}{\ln(t+2)}$$
$$l := 0$$
$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{\left(e^{\frac{1}{y\sim}}-2\right)^{a\sim-1}2^{-\frac{1}{2}a\sim+1}e^{-\frac{1}{2}\frac{e^{\frac{2}{y\sim}}y\sim-4e^{\frac{1}{y\sim}}y\sim+4y\sim-2}{y\sim}}}{\Gamma\left(\frac{1}{2}a\sim\right)y\sim^2}\right], \left[0, \frac{1}{\ln(2)}\right], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

$$\text{"g(x)"}, \frac{1}{\ln(x+2)}, \text{"base"}, \frac{x^{a\sim-1}\,e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{\left(e^{\frac{1}{x}}-2\right)^{a\sim-1} 2^{-\frac{1}{2}a\sim+1} e^{-\frac{1}{2}\frac{e^{\frac{2}{x}}x-4e^{\frac{1}{x}}x+4x-2}{x}}}{\Gamma\left(\frac{1}{2}a\sim\right)x^2}$$

"i is", 11,

" --"

$$g := t \to \tanh(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to -\frac{\operatorname{arctanh}(y\sim)^{a\sim-1}\,e^{-\frac{1}{2}\operatorname{arctanh}(y\sim)^2}\,2^{-\frac{1}{2}a\sim+1}}{(y\sim^2-1)\,\Gamma\left(\frac{1}{2}a\sim\right)}\right], [0, 1], [\text{"Continuous"}, \text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)"}, \tanh(x), \text{"base"}, \frac{x^{a\sim-1}\,e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, -\frac{\operatorname{arctanh}(x)^{a\sim-1}\,e^{-\frac{1}{2}\operatorname{arctanh}(x)^2}\,2^{-\frac{1}{2}a\sim+1}}{(x^2-1)\,\Gamma\left(\frac{1}{2}a\sim\right)}$$

"i is", 12,

" --"

$$g := t \to \sinh(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{\operatorname{arcsinh}(y\sim)^{a\sim-1}\,e^{-\frac{1}{2}\operatorname{arcsinh}(y\sim)^2}\,2^{-\frac{1}{2}a\sim+1}}{\Gamma\left(\frac{1}{2}a\sim\right)\sqrt{y\sim^2+1}}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)", } \sinh(x), \text{ "base", } \frac{x^{a\sim-1} e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim-1} \Gamma\left(\frac{1}{2} a\sim\right)}, \text{ "ChiRV(a)"}$$

$$\text{"f(x)", } \frac{\operatorname{arcsinh}(x)^{a\sim-1} e^{-\frac{1}{2} \operatorname{arcsinh}(x)^2} 2^{-\frac{1}{2} a\sim+1}}{\Gamma\left(\frac{1}{2} a\sim\right) \sqrt{x^2+1}}$$

"i is", 13,
"---"

$$g := t \rightarrow \operatorname{arcsinh}(t)$$
$$l := 0$$
$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{\sinh(y\sim)^{a\sim-1} e^{-\frac{1}{2} \sinh(y\sim)^2} 2^{-\frac{1}{2} a\sim+1} \cosh(y\sim)}{\Gamma\left(\frac{1}{2} a\sim\right)}\right], [0, \infty], [\text{"Continuous", "PDF"}]\right]$$

$$\text{"l and u", } 0, \infty$$

$$\text{"g(x)", } \operatorname{arcsinh}(x), \text{ "base", } \frac{x^{a\sim-1} e^{-\frac{1}{2} x^2}}{2^{\frac{1}{2} a\sim-1} \Gamma\left(\frac{1}{2} a\sim\right)}, \text{ "ChiRV(a)"}$$

$$\text{"f(x)", } \frac{\sinh(x)^{a\sim-1} e^{-\frac{1}{2} \sinh(x)^2} 2^{-\frac{1}{2} a\sim+1} \cosh(x)}{\Gamma\left(\frac{1}{2} a\sim\right)}$$

"i is", 14,
"---"

$$g := t \rightarrow \operatorname{csch}(t+1)$$
$$l := 0$$
$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{(-1+\operatorname{arccsch}(y\sim))^{a\sim-1} e^{-\frac{1}{2} (-1+\operatorname{arccsch}(y\sim))^2} 2^{-\frac{1}{2} a\sim+1}}{\sqrt{y\sim^2+1}\, \Gamma\left(\frac{1}{2} a\sim\right) |y\sim|}\right], \left[0, \frac{2}{e-e^{-1}}\right],\right.$$

["Continuous", "PDF"]

"l and u", 0, ∞

"g(x)", $\operatorname{csch}(x+1)$, "base", $\dfrac{x^{a\sim-1}\, \mathrm{e}^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}$, "ChiRV(a)"

"f(x)", $\dfrac{(-1+\operatorname{arccsch}(x))^{a\sim-1}\,\mathrm{e}^{-\frac{1}{2}(-1+\operatorname{arccsch}(x))^2}\,2^{-\frac{1}{2}a\sim+1}}{\sqrt{x^2+1}\,\Gamma\left(\frac{1}{2}a\sim\right)\,|x|}$

"i is", 15,

" ---"

$$g := t \to \operatorname{arccsch}(t+1)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to -\frac{2^{1+\frac{1}{2}a\sim}\,\mathrm{e}^{-\frac{1}{2}\frac{(\sinh(y\sim)-1)^2}{\sinh(y\sim)^2}}\cosh(y\sim)\left(-\frac{1}{2}\,\frac{\sinh(y\sim)-1}{\sinh(y\sim)}\right)^{a\sim}}{\Gamma\left(\frac{1}{2}a\sim\right)(\sinh(y\sim)-1)\sinh(y\sim)}\right], \left[0, \ln\left(1+\sqrt{2}\right)\right], [\text{"Continuous", "PDF"}]\right]$$

"l and u", 0, ∞

"g(x)", $\operatorname{arccsch}(x+1)$, "base", $\dfrac{x^{a\sim-1}\, \mathrm{e}^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}$, "ChiRV(a)"

"f(x)", $-\dfrac{2^{1+\frac{1}{2}a\sim}\,\mathrm{e}^{-\frac{1}{2}\frac{(\sinh(x)-1)^2}{\sinh(x)^2}}\cosh(x)\left(-\frac{1}{2}\,\frac{\sinh(x)-1}{\sinh(x)}\right)^{a\sim}}{\Gamma\left(\frac{1}{2}a\sim\right)(\sinh(x)-1)\sinh(x)}$

"i is", 16,

" ---"

$$g := t \rightarrow \frac{1}{\tanh(t+1)}$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{\left(-1+\operatorname{arctanh}\left(\frac{1}{y\sim}\right)\right)^{a\sim-1} \mathrm{e}^{-\frac{1}{2}\left(-1+\operatorname{arctanh}\left(\frac{1}{y\sim}\right)\right)^2} 2^{-\frac{1}{2}a\sim+1}}{\Gamma\left(\frac{1}{2}a\sim\right)\left(y\sim^2-1\right)}\right], \left[1, \frac{\mathrm{e}+\mathrm{e}^{-1}}{\mathrm{e}-\mathrm{e}^{-1}}\right], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

"g(x)", $\frac{1}{\tanh(x+1)}$, "base", $\frac{x^{a\sim-1}\mathrm{e}^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\Gamma\left(\frac{1}{2}a\sim\right)}$, "ChiRV(a)"

"f(x)", $\frac{\left(-1+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)^{a\sim-1} \mathrm{e}^{-\frac{1}{2}\left(-1+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)^2} 2^{-\frac{1}{2}a\sim+1}}{\Gamma\left(\frac{1}{2}a\sim\right)\left(x^2-1\right)}$

"i is", 17,

" --"

$$g := t \rightarrow \frac{1}{\sinh(t+1)}$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \rightarrow \frac{\left(-1+\operatorname{arcsinh}\left(\frac{1}{y\sim}\right)\right)^{a\sim-1} \mathrm{e}^{-\frac{1}{2}\left(-1+\operatorname{arcsinh}\left(\frac{1}{y\sim}\right)\right)^2} 2^{-\frac{1}{2}a\sim+1}}{\sqrt{y\sim^2+1}\,\Gamma\left(\frac{1}{2}a\sim\right)|y\sim|}\right], \left[0, \frac{2}{\mathrm{e}-\mathrm{e}^{-1}}\right], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

$$\text{"g(x)"}, \frac{1}{\sinh(x+1)}, \text{"base"}, \frac{x^{a\sim-1}\,e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{\left(-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)\right)^{a\sim-1}\,e^{-\frac{1}{2}\left(-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)\right)^2}\,2^{-\frac{1}{2}a\sim+1}}{\sqrt{x^2+1}\,\Gamma\left(\frac{1}{2}a\sim\right)\,|x|}$$

"i is", 18,
" --"

$$g := t \to \frac{1}{\operatorname{arcsinh}(t+1)}$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{\left(-1+\sinh\left(\frac{1}{y\sim}\right)\right)^{a\sim-1}\,e^{-\frac{1}{2}\left(-1+\sinh\left(\frac{1}{y\sim}\right)\right)^2}\,2^{-\frac{1}{2}a\sim+1}\cosh\left(\frac{1}{y\sim}\right)}{\Gamma\left(\frac{1}{2}a\sim\right)\,y\sim^2}\right], \left[0, \frac{1}{\ln\left(1+\sqrt{2}\right)}\right], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

$$\text{"g(x)"}, \frac{1}{\operatorname{arcsinh}(x+1)}, \text{"base"}, \frac{x^{a\sim-1}\,e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{\left(-1+\sinh\left(\frac{1}{x}\right)\right)^{a\sim-1}\,e^{-\frac{1}{2}\left(-1+\sinh\left(\frac{1}{x}\right)\right)^2}\,2^{-\frac{1}{2}a\sim+1}\cosh\left(\frac{1}{x}\right)}{\Gamma\left(\frac{1}{2}a\sim\right)\,x^2}$$

"i is", 19,
" --"

$$g := t \to \frac{1}{\operatorname{csch}(t)} + 1$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{\operatorname{arccsch}\left(\frac{1}{y\sim -1}\right)^{a\sim -1} e^{-\frac{1}{2}\operatorname{arccsch}\left(\frac{1}{y\sim -1}\right)^{2}} 2^{-\frac{1}{2}a\sim +1}}{\sqrt{y\sim^{2}-2y\sim +2}\,\Gamma\left(\frac{1}{2}a\sim\right)}\right], [1, \infty],\right.$$

$$\left.[\text{"Continuous"}, \text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)"}, \frac{1}{\operatorname{csch}(x)}+1, \text{"base"}, \frac{x^{a\sim -1} e^{-\frac{1}{2}x^{2}}}{2^{\frac{1}{2}a\sim -1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{\operatorname{arccsch}\left(\frac{1}{x-1}\right)^{a\sim -1} e^{-\frac{1}{2}\operatorname{arccsch}\left(\frac{1}{x-1}\right)^{2}} 2^{-\frac{1}{2}a\sim +1}}{\sqrt{x^{2}-2x+2}\,\Gamma\left(\frac{1}{2}a\sim\right)}$$

"i is", 20,
" ---
----------"

$$g := t \to \tanh\left(\frac{1}{t}\right)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to -\frac{\operatorname{arctanh}(y\sim)^{-a\sim -1} e^{-\frac{1}{2\operatorname{arctanh}(y\sim)^{2}}} 2^{-\frac{1}{2}a\sim +1}}{\left(y\sim^{2}-1\right)\Gamma\left(\frac{1}{2}a\sim\right)}\right], [0, 1], [\text{"Continuous"},\right.$$

$$\left.\text{"PDF"}]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)"}, \tanh\left(\frac{1}{x}\right), \text{"base"}, \frac{x^{a\sim -1} e^{-\frac{1}{2}x^{2}}}{2^{\frac{1}{2}a\sim -1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$"f(x)", -\frac{\operatorname{arctanh}(x)^{-a\sim-1}\, e^{-\frac{1}{2\operatorname{arctanh}(x)^2}}\, 2^{-\frac{1}{2}a\sim+1}}{(x^2-1)\,\Gamma\left(\frac{1}{2}a\sim\right)}$$

"i is", 21,
" ---
----------"

$$g := t \to \operatorname{csch}\left(\frac{1}{t}\right)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[\left[y\sim \to \frac{\operatorname{arccsch}(y\sim)^{-a\sim-1}\, e^{-\frac{1}{2\operatorname{arccsch}(y\sim)^2}}\, 2^{-\frac{1}{2}a\sim+1}}{\sqrt{y\sim^2+1}\,\Gamma\left(\frac{1}{2}a\sim\right)|y\sim|}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]\right]$$

$$\text{"l and u"}, 0, \infty$$

$$\text{"g(x)"}, \operatorname{csch}\left(\frac{1}{x}\right), \text{"base"}, \frac{x^{a\sim-1}\, e^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)}, \text{"ChiRV(a)"}$$

$$\text{"f(x)"}, \frac{\operatorname{arccsch}(x)^{-a\sim-1}\, e^{-\frac{1}{2\operatorname{arccsch}(x)^2}}\, 2^{-\frac{1}{2}a\sim+1}}{\sqrt{x^2+1}\,\Gamma\left(\frac{1}{2}a\sim\right)|x|}$$

"i is", 22,
" ---
----------"

$$g := t \to \operatorname{arccsch}\left(\frac{1}{t}\right)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[\left[y\sim \to \frac{2^{-\frac{1}{2}a\sim+1}\,\sinh(y\sim)^{a\sim-1}\, e^{-\frac{1}{2}\sinh(y\sim)^2}\cosh(y\sim)}{\Gamma\left(\frac{1}{2}a\sim\right)}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]\right]$$

$$"\text{l and u}",\ 0,\ \infty$$

$$"\text{g(x)}",\ \operatorname{arccsch}\left(\frac{1}{x}\right),\ "\text{base}",\ \frac{x^{a\sim-1}\,\mathrm{e}^{-\frac{1}{2}x^2}}{2^{\frac{1}{2}a\sim-1}\,\Gamma\left(\frac{1}{2}a\sim\right)},\ "\text{ChiRV(a)}"$$

$$"\text{f(x)}",\ \frac{2^{-\frac{1}{2}a\sim+1}\,\sinh(x)^{a\sim-1}\,\mathrm{e}^{-\frac{1}{2}\sinh(x)^2}\cosh(x)}{\Gamma\left(\frac{1}{2}a\sim\right)} \tag{1}$$