$$\frac{1}{\pi\sqrt{x\,(1-x)}}$$

"i is", 16,
" ---"

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

$$l := 0$$

$$u := \infty$$

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

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

$$\text{"g(x)"}, \frac{1}{\tanh(x+1)}, \text{"base"}, \frac{1}{\pi\sqrt{x\,(1-x)}}, \text{"ArcSinRV()"}$$

$$\text{"f(x)"}, \frac{1}{\sqrt{-\left(-1+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)\left(-2+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)}\,\pi\,(x^2-1)}$$

$$\text{"S(x)"}, \frac{\pi-\arcsin\left(-3+2\operatorname{arctanh}\left(\frac{e^4-1}{e^4+1}\right)\right)+\arcsin\left(-3+2\operatorname{arctanh}\left(\frac{1}{x}\right)\right)}{\pi}$$

$$\text{"h(x)"}, -1\Bigg/\left(\sqrt{-\left(-1+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)\left(-2+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)}\,(x^2-1)\left(-\pi+\arcsin\left(-3+2\operatorname{arctanh}\left(\frac{e^4-1}{e^4+1}\right)\right)-\arcsin\left(-3+2\operatorname{arctanh}\left(\frac{1}{x}\right)\right)\right)\right)$$

"mean and variance",

$$\frac{\displaystyle\int_{\frac{e^4+1}{e^4-1}}^{\frac{e^2+1}{e^2-1}} \frac{x}{\sqrt{-\left(-1+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)\left(-2+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)}\,(x^2-1)}\,dx}{\pi}, \frac{1}{\pi^2}\Bigg(\Bigg(

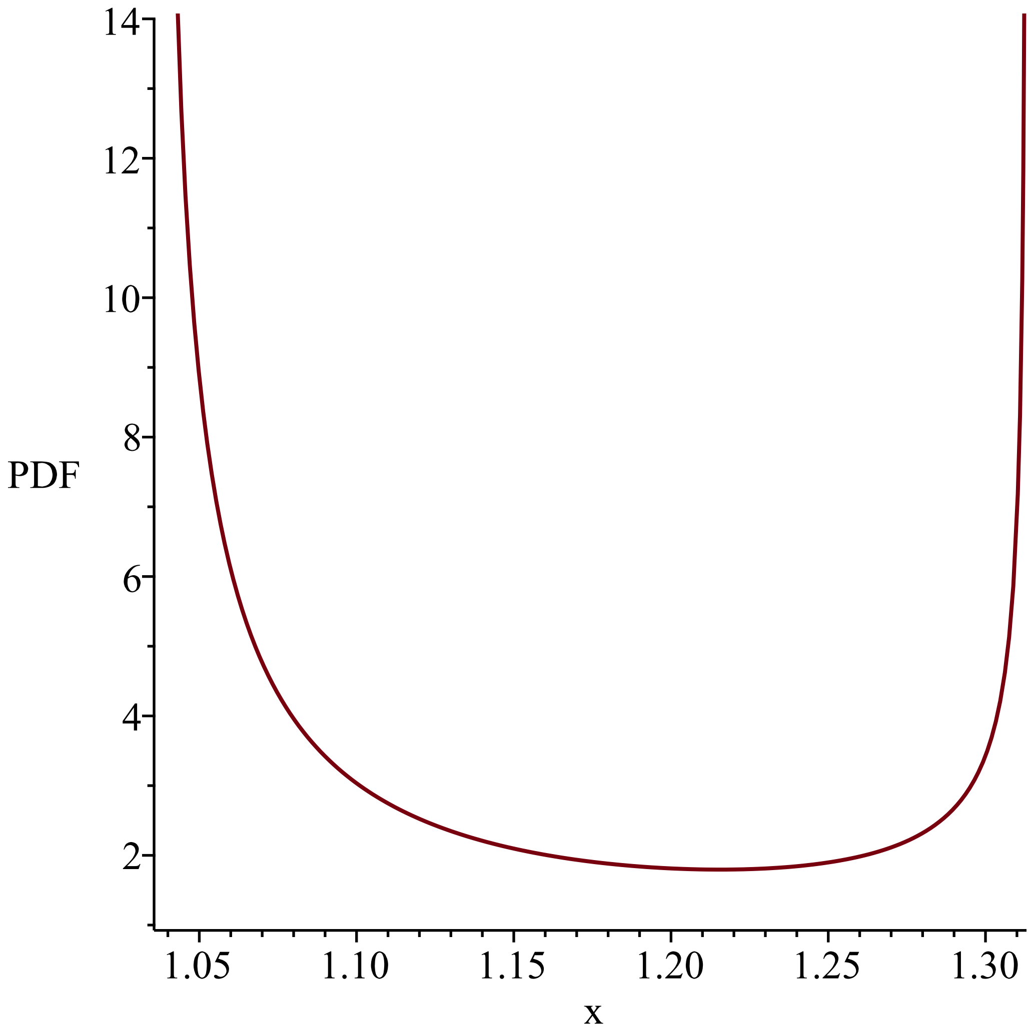
$$\left.\int_{\frac{e^4+1}{e^4-1}}^{\frac{e^2+1}{e^2-1}} \frac{x^2}{\sqrt{-\left(-1+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)\left(-2+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)}\,\left(x^2-1\right)}\,\mathrm{d}x\right)\pi$$

$$-\left(\int_{\frac{e^4+1}{e^4-1}}^{\frac{e^2+1}{e^2-1}} \frac{x}{\sqrt{-\left(-1+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)\left(-2+\operatorname{arctanh}\left(\frac{1}{x}\right)\right)}\,\left(x^2-1\right)}\,\mathrm{d}x\right)^2\Bigg)$$

WARNING(PlotDist): Low value provided by user, 0
is less than minimum support value of random variable

$$\frac{-e^{-2}-e^{2}}{e^{-2}-e^{2}}$$

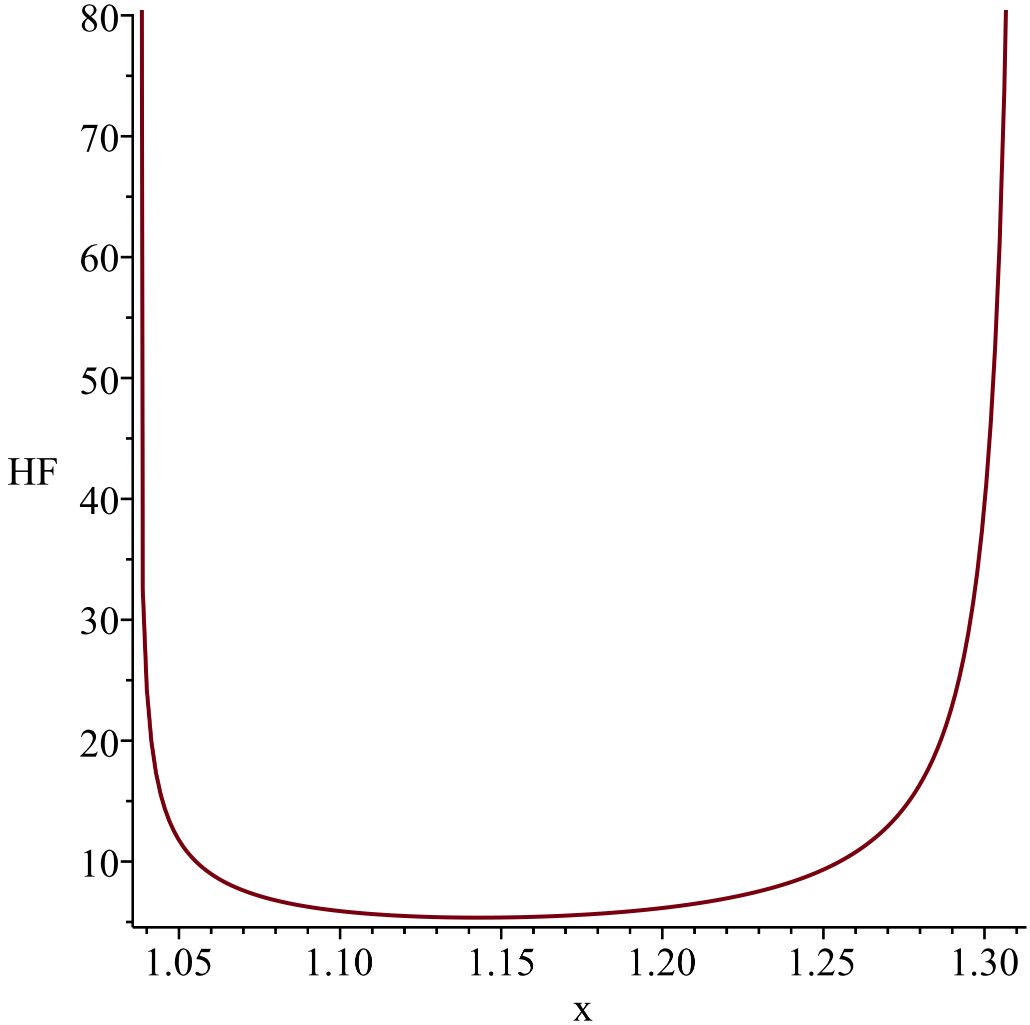
Resetting low to RV's minimum support value
WARNING(PlotDist): High value provided by user, 40
is greater than maximum support value of the random
variable, $\frac{e+e^{-1}}{e-e^{-1}}$
Resetting high to RV's maximum support value



WARNING(PlotDist): Low value provided by user, 0
is less than minimum support value of random variable

$$\frac{-e^{-2}-e^{2}}{e^{-2}-e^{2}}$$

Resetting low to RV's minimum support value
WARNING(PlotDist): High value provided by user, 40
is greater than maximum support value of the random
variable, $\frac{e+e^{-1}}{e-e^{-1}}$
Resetting high to RV's maximum support value




```
{\frac {1}{\sqrt {- \left( -1+{\rm arctanh} \left({x}^{-1}
\right)
 \right)  \left( -2+{\rm arctanh} \left({x}^{-1}\right) \right)
}\pi\,
 \left( {x}^{2}-1 \right) }}
```

"i is", 17,

" --
----------"

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

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

$$"g(x)", \frac{1}{\sinh(x+1)}, "base", \frac{1}{\pi\sqrt{x\,(1-x)}}, "ArcSinRV()"$$

$$"f(x)", \frac{1}{\sqrt{-\left(-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)\right)\left(-2+\operatorname{arcsinh}\left(\frac{1}{x}\right)\right)}\,\sqrt{x^2+1}\,\pi\,|x|}$$

$$"S(x)", -\frac{-\pi+\displaystyle\int_{\frac{2e^2}{e^4-1}}^{x}\frac{1}{\sqrt{-\left(-1+\operatorname{arcsinh}\left(\frac{1}{t}\right)\right)\left(-2+\operatorname{arcsinh}\left(\frac{1}{t}\right)\right)}\,\sqrt{t^2+1}\,|t|}\,dt}{\pi}$$

$$"h(x)", 1\Bigg/\left(\sqrt{-\left(-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)\right)\left(-2+\operatorname{arcsinh}\left(\frac{1}{x}\right)\right)}\,\sqrt{x^2+1}\,|x|\left(\pi-\left(\int_{\frac{2e^2}{e^4-1}}^{x}\frac{1}{\sqrt{-\left(-1+\operatorname{arcsinh}\left(\frac{1}{t}\right)\right)\left(-2+\operatorname{arcsinh}\left(\frac{1}{t}\right)\right)}\,\sqrt{t^2+1}\,|t|}\,dt\right)\right)\right)$$

$$"mean and variance", \frac{\displaystyle\int_{\frac{2e^2}{e^4-1}}^{\frac{2e}{e^2-1}}\frac{1}{\sqrt{-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)}\,\sqrt{2-\operatorname{arcsinh}\left(\frac{1}{x}\right)}\,\sqrt{x^2+1}}\,dx}{\pi},$$

$$\frac{1}{\pi^2}\left(\left(\int_{\frac{2e^2}{e^4-1}}^{\frac{2e}{e^2-1}}\frac{x}{\sqrt{-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)}\,\sqrt{2-\operatorname{arcsinh}\left(\frac{1}{x}\right)}\,\sqrt{x^2+1}}\,dx\right)\pi - \left(\int_{\frac{2e^2}{e^4-1}}^{\frac{2e}{e^2-1}}\frac{1}{\sqrt{-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)}\,\sqrt{2-\operatorname{arcsinh}\left(\frac{1}{x}\right)}\,\sqrt{x^2+1}}\,dx\right)^2\right)$$

WARNING(PlotDist): Low value provided by user, 0 *is less than minimum support value of random variable*

$$-\frac{2}{e^{-2}-e^{2}}$$

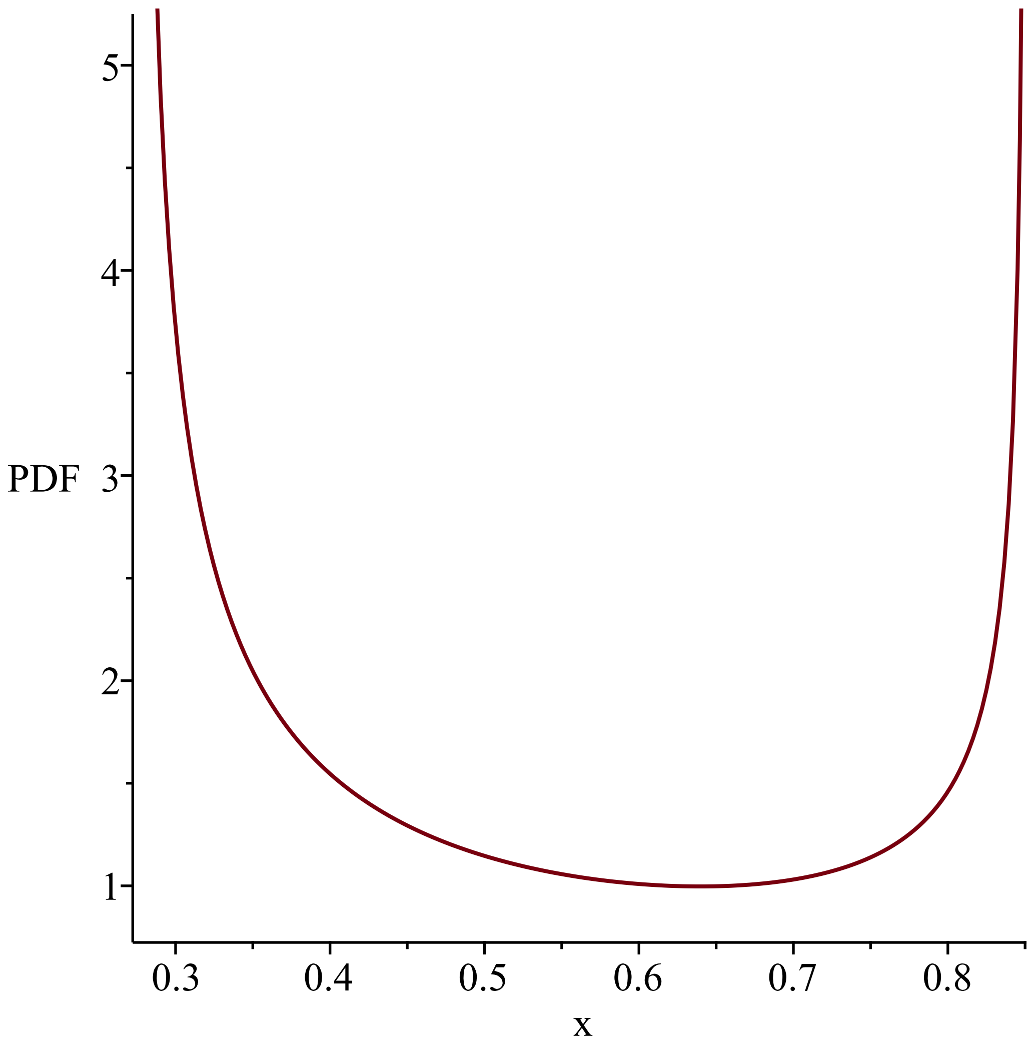
Resetting low to RV's minimum support value

WARNING(PlotDist): High value provided by user, 40

is greater than maximum support value of the random

variable, $\frac{2}{e-e^{-1}}$

Resetting high to RV's maximum support value



WARNING(PlotDist): Low value provided by user, 0

is less than minimum support value of random variable

$$-\frac{2}{e^{-2}-e^{2}}$$

Resetting low to RV's minimum support value

WARNING(PlotDist): High value provided by user, 40

is greater than maximum support value of the random

$$\textit{variable}, \frac{2}{e - e^{-1}}$$

Resetting high to RV's maximum support value

Warning, computation interrupted

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