> restart

$$\epsilon := (1 - P) \cdot cI \cdot [1 - F] + P \cdot c2 \cdot \theta \cdot \left(\frac{b}{2} + \frac{2 \cdot \pi}{4}\right) \cdot F \cdot \left(\frac{b}{2} + \frac{\sqrt{2 \cdot \pi}}{4}\right)$$

$$\epsilon := (1 - P) \cdot cI \cdot [1 - F] + P \cdot c2 \cdot \theta \cdot \left(\frac{1}{2} \cdot b + \frac{1}{2} \cdot \pi\right) F \cdot \left(\frac{1}{2} \cdot b + \frac{1}{4} \cdot \sqrt{2} \cdot \sqrt{\pi}\right)$$

$$(1)$$

$$F := \sqrt{\frac{\pi}{2}} \left(\theta \cdot \operatorname{erf}\left(\frac{b}{\sqrt{2}\theta}\right) + \frac{1}{\sqrt{\frac{1}{\theta^2}}} \right); c1 := 1.25 \cdot 10^5 : c2 := 15 : \theta := 2000 : P := 0.25 :$$

$$F := \frac{1}{2} \sqrt{2} \sqrt{\pi} \left(\theta \operatorname{erf}\left(\frac{1}{2} \frac{b\sqrt{2}}{\theta}\right) + \frac{1}{\sqrt{\frac{1}{\theta^2}}} \right)$$
(2)

-> 6

$$\left[93750.0000 - 46875.00000 \sqrt{2} \sqrt{\pi} \left(2000 \operatorname{erf}\left(\frac{1}{4000} b \sqrt{2}\right) + \sqrt{4000000}\right)\right] + 3750.000000 \left(\frac{1}{2} b + \frac{1}{2} \pi\right) \sqrt{2} \sqrt{\pi} \left(2000 \operatorname{erf}\left(\frac{1}{4000} b \sqrt{2}\right) + \sqrt{4000000}\right) \left(\frac{1}{2} b + \frac{1}{4} \sqrt{2} \sqrt{\pi}\right) + \frac{1}{4} \sqrt{2} \sqrt{\pi}\right)$$

 $> \frac{\partial}{\partial b} \epsilon$

$$\begin{bmatrix}
-93750.000000 e^{-\frac{1}{80000000}b^{2}} \\
+\sqrt{4000000} \\
\end{bmatrix} + 1875.0000000 \sqrt{2} \sqrt{\pi} \\
\left(2000 \operatorname{erf} \left(\frac{1}{4000} b \sqrt{2}\right) \\
+\sqrt{4000000} \\
\right) \\
\left(\frac{1}{2} b + \frac{1}{4} \sqrt{2} \sqrt{\pi}\right) + 7500.0000000 \\
\left(\frac{1}{2} b \\
+ \frac{1}{2} \pi\right) e^{-\frac{1}{8000000}b^{2}} \\
\left(\frac{1}{2} b + \frac{1}{4} \sqrt{2} \sqrt{\pi}\right) + 1875.000000 \\
\left(\frac{1}{2} b \\
+ \frac{1}{2} \pi\right) \sqrt{2} \sqrt{\pi} \\
\left(2000 \operatorname{erf} \left(\frac{1}{4000} b \sqrt{2}\right) + \sqrt{4000000}\right)$$

 $> \frac{\partial}{\partial b} \frac{\partial}{\partial b} \epsilon$

$$\begin{bmatrix}
0.02343750000 \ b \ e^{-\frac{1}{8000000} \ b^{2}} \end{bmatrix} + 7500.0000000 \ e^{-\frac{1}{8000000} \ b^{2}} \left(\frac{1}{2} \ b + \frac{1}{4} \sqrt{2} \sqrt{\pi}\right) \\
+ 1875.000000 \sqrt{2} \sqrt{\pi} \left(2000 \ erf\left(\frac{1}{4000} \ b \sqrt{2}\right) + \sqrt{4000000}\right) \\
- 0.001875000000 \left(\frac{1}{2} \ b + \frac{1}{2} \ \pi\right) b \ e^{-\frac{1}{8000000} \ b^{2}} \left(\frac{1}{2} \ b + \frac{1}{4} \sqrt{2} \sqrt{\pi}\right) \\
+ 7500.000000 \left(\frac{1}{2} \ b + \frac{1}{2} \ \pi\right) e^{-\frac{1}{8000000} \ b^{2}}$$

