$$s := \left[f - \frac{1}{\sqrt{2 \cdot \pi} \cdot \sigma} \cdot e^{\left[\frac{-(t-m)^2}{2(\sigma)^2} \right]} \right]^2$$

$$\frac{d}{dm} s \rightarrow \frac{\sqrt{2} \cdot e^{-\frac{(m-t)^2}{2 \cdot \sigma^2}} \cdot \left[f - \frac{\sqrt{2} \cdot e^{-\frac{(m-t)^2}{2 \cdot \sigma^2}}}{2 \cdot \sqrt{\pi} \cdot \sigma} \right] \cdot (2 \cdot m - 2 \cdot t)}{2 \cdot \sqrt{\pi} \cdot \sigma^3}$$

$$\frac{d}{d\sigma} s \rightarrow 2 \cdot \left[f - \frac{\sqrt{2} \cdot e^{-\frac{(m-t)^2}{2 \cdot \sigma^2}}}{2 \cdot \sqrt{\pi} \cdot \sigma} \right] \cdot \left[\frac{\sqrt{2} \cdot e^{-\frac{(m-t)^2}{2 \cdot \sigma^2}}}{2 \cdot \sqrt{\pi} \cdot \sigma^2} - \frac{\sqrt{2} \cdot e^{-\frac{(m-t)^2}{2 \cdot \sigma^2}} \cdot (m-t)^2}{2 \cdot \sqrt{\pi} \cdot \sigma^4} \right]$$

$i := 0..25 \qquad N_0 := 26$

$$\Delta tt := \begin{pmatrix} 130 \\ 136 \\ 141 \\ 148 \\ 154 \\ 163 \\ 170 \\ 180 \\ 190 \\ 203 \\ 214 \\ 228 \\ 247 \\ 267 \\ 290 \\ 316 \\ 350 \\ 391 \\ 444 \\ 513 \\ 606 \\ 741 \\ 950 \\ 1330 \\ 2222 \\ 6660 \end{pmatrix}$$

$$f_i := \frac{1}{N_0 \cdot \Delta tt_i} \qquad tx_i := \sum_{i1=0}^{i} \Delta tt_{i1}$$

$f_i =$

$2.959 \cdot 10^{-4}$
$2.828 \cdot 10^{-4}$
$2.728 \cdot 10^{-4}$
$2.599 \cdot 10^{-4}$
$2.498 \cdot 10^{-4}$
$2.36 \cdot 10^{-4}$
$2.262 \cdot 10^{-4}$
$2.137 \cdot 10^{-4}$
$2.024 \cdot 10^{-4}$
$1.895 \cdot 10^{-4}$
$1.797 \cdot 10^{-4}$
$1.687 \cdot 10^{-4}$
$1.557 \cdot 10^{-4}$
$1.441 \cdot 10^{-4}$
$1.326 \cdot 10^{-4}$
...

$tx_i =$

130
266
407
555
709
872
$1.042 \cdot 10^3$
$1.222 \cdot 10^3$
$1.412 \cdot 10^3$
$1.615 \cdot 10^3$
$1.829 \cdot 10^3$
$2.057 \cdot 10^3$
$2.304 \cdot 10^3$
$2.571 \cdot 10^3$
$2.861 \cdot 10^3$
...

$m := 100 \qquad \sigma := 300$

Given

$$\sum_{i=0}^{25} \frac{\sqrt{2}\cdot e^{-\frac{(m-tx_i)^2}{2\cdot\sigma^2}}\cdot\left[f_i-\frac{\sqrt{2}\cdot e^{-\frac{(m-tx_i)^2}{2\cdot\sigma^2}}}{2\cdot\sqrt{\pi}\cdot\sigma}\right]\cdot\left(2\cdot m-2\cdot tx_i\right)}{2\cdot\sqrt{\pi}\cdot\sigma^3}=0$$

$$\sum_{i=0}^{25}\left[2\cdot\left[f_i-\frac{\sqrt{2}\cdot e^{-\frac{(m-tx_i)^2}{2\cdot\sigma^2}}}{2\cdot\sqrt{\pi}\cdot\sigma}\right]\cdot\left[\frac{\sqrt{2}\cdot e^{-\frac{(m-tx_i)^2}{2\cdot\sigma^2}}}{2\cdot\sqrt{\pi}\cdot\sigma^2}-\frac{\sqrt{2}\cdot e^{-\frac{(m-tx_i)^2}{2\cdot\sigma^2}}\cdot(m-tx_i)^2}{2\cdot\sqrt{\pi}\cdot\sigma^4}\right]\right]=0$$

$$\begin{pmatrix} m2 \\ \sigma2 \end{pmatrix} := \text{Find}(m,\sigma)$$

$m2 = 804.494$

$\sigma2 = 1.679\times10^{3}$

$m1 := \text{mean}(tx)$

$\sigma1 := \text{stdev}(tx)$

$m1 = 3.661\times10^{3}$

$\sigma1 = 3.815\times10^{3}$

$$\frac{\sum_{i=0}^{25} tx_i}{26} = 3.661\times10^{3}$$

$$T1 := \int_{-\infty}^{\infty} tx \cdot \frac{e^{-\frac{(m2-tx)^2}{2\cdot\sigma2^2}}}{\sqrt{2\cdot\pi}\cdot\sigma2}\,dtx$$

$$T1 = 804.494$$

$$k := \frac{1}{\int_{0}^{\infty} \frac{e^{-\frac{(m2-tx)^2}{2\cdot\sigma2^2}}}{\sqrt{2\cdot\pi}\cdot\sigma2}\,dtx}$$

$$k = 1.462$$

$$Tcp1 := k \cdot \int_{0}^{\infty} tx \cdot \frac{e^{-\frac{(m2-tx)^2}{2\cdot\sigma2^2}}}{\sqrt{2\cdot\pi}\cdot\sigma2}\,dtx$$

$$Tcp1 = 1.677 \times 10^3$$

$$tcp1 := T1 + k \cdot e^{-\frac{(m2)^2}{2\cdot\sigma2^2}} \cdot \frac{\sigma2}{\sqrt{2\cdot\pi}} = 1.677 \times 10^3$$

$$tcp1 = 1.677 \times 10^3$$

$$ff := \frac{e^{-\frac{(m2-tx)^2}{2\cdot\sigma2^2}}}{\sqrt{2\cdot\pi}\cdot\sigma2} \qquad fff := k\cdot\frac{e^{-\frac{(m2-tx)^2}{2\cdot\sigma2^2}}}{\sqrt{2\cdot\pi}\cdot\sigma2}$$

$f_i =$

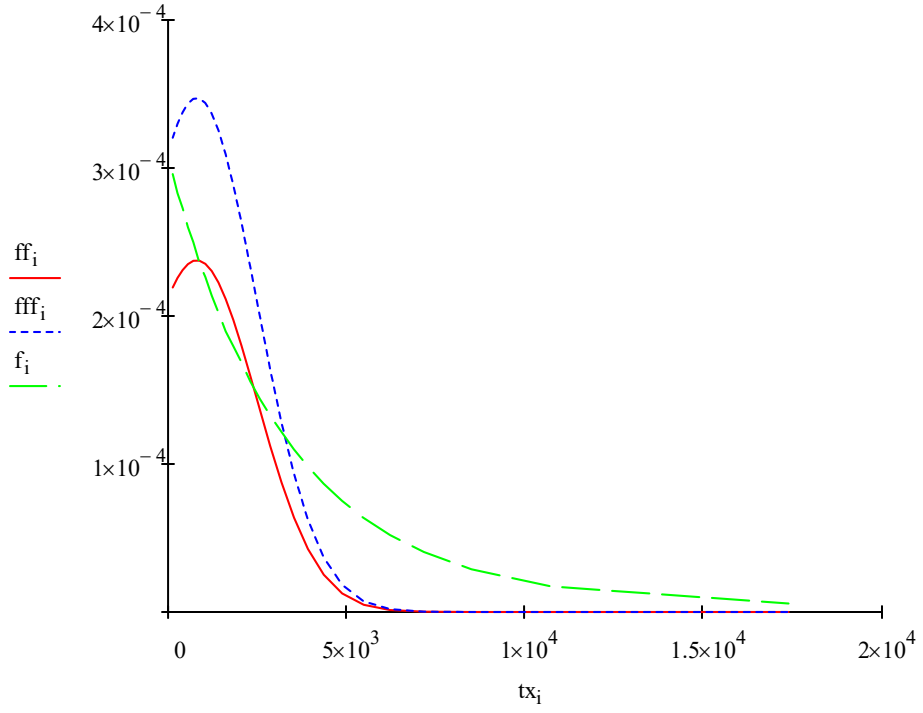
$2.959\cdot10^{-4}$
$2.828\cdot10^{-4}$
$2.728\cdot10^{-4}$
$2.599\cdot10^{-4}$
$2.498\cdot10^{-4}$
$2.36\cdot10^{-4}$
$2.262\cdot10^{-4}$
$2.137\cdot10^{-4}$
$2.024\cdot10^{-4}$
$1.895\cdot10^{-4}$
$1.797\cdot10^{-4}$
$1.687\cdot10^{-4}$
$1.557\cdot10^{-4}$
$1.441\cdot10^{-4}$
$1.326\cdot10^{-4}$
...

$ff =$

	0
0	$2.192\cdot10^{-4}$
1	$2.257\cdot10^{-4}$
2	$2.311\cdot10^{-4}$
3	$2.35\cdot10^{-4}$
4	$2.372\cdot10^{-4}$
5	$2.374\cdot10^{-4}$
6	$2.353\cdot10^{-4}$
7	$2.304\cdot10^{-4}$
8	$2.226\cdot10^{-4}$
9	$2.115\cdot10^{-4}$
10	$1.973\cdot10^{-4}$
11	$1.799\cdot10^{-4}$
12	$1.595\cdot10^{-4}$
13	$1.366\cdot10^{-4}$
14	$1.122\cdot10^{-4}$
15	...

$fff =$

	0
0	$3.204\cdot10^{-4}$
1	$3.299\cdot10^{-4}$
2	$3.378\cdot10^{-4}$
3	$3.436\cdot10^{-4}$
4	$3.468\cdot10^{-4}$
5	$3.471\cdot10^{-4}$
6	$3.439\cdot10^{-4}$
7	$3.368\cdot10^{-4}$
8	$3.254\cdot10^{-4}$
9	$3.092\cdot10^{-4}$
10	$2.883\cdot10^{-4}$
11	$2.63\cdot10^{-4}$
12	$2.331\cdot10^{-4}$
13	$1.997\cdot10^{-4}$
14	$1.64\cdot10^{-4}$
15	...



$\alpha := 0.95$

$qt(\alpha, N_0 - 1) = 1.708$ $qt(1 - \alpha, N_0 - 1) = -1.708$

$Tn := Tcp1 - qt(\alpha, N_0 - 1) \cdot \frac{\sigma 2}{\sqrt{N_0}}$ $Tв := Tcp1 + qt(\alpha, N_0 - 1) \cdot \frac{\sigma 2}{\sqrt{N_0}}$

$Tn = 1.115 \times 10^3$ $Tcp1 = 1.677 \times 10^3$ $Tв = 2.24 \times 10^3$