

XY :=

	0	1
0	741.12	0.231
1	769.435	...

$$(X \ Y) := \begin{pmatrix} XY^{(0)} & XY^{(1)} \end{pmatrix} \quad \begin{pmatrix} m \\ n \\ x_0 \end{pmatrix} := \begin{pmatrix} 0 \\ 0 \\ 950 \end{pmatrix}$$

$x := 636..2200$

$$q(m, n, x_0, x) := 1 \cdot [(x - x_0)^3 \cdot m + n \cdot (x - x_0)^2]$$

Given $q(m, n, x_0, X) - Y = 0$

$$\begin{pmatrix} m \\ n \end{pmatrix} := \text{Minerr}(m, n)$$

(offset cutoff) := (0.22 x₀)

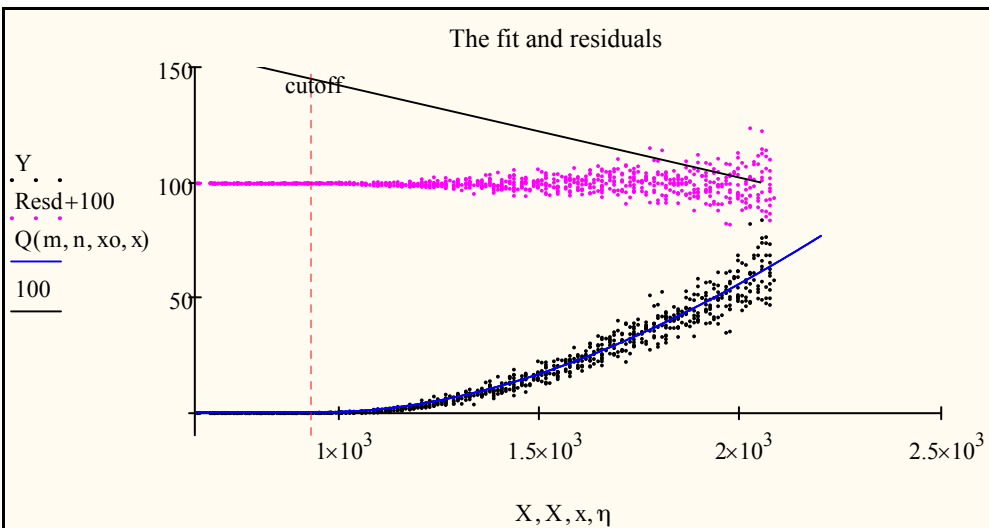
$$Q(m, n, x_0, x) := \begin{cases} \text{offset} & \text{if } x \leq \text{cutoff} \\ \text{offset} + q(m, n, x_0, x) & \text{otherwise} \end{cases}$$

$$\begin{pmatrix} m \\ n \\ x_0 \end{pmatrix} = \begin{pmatrix} -9.44461 \times 10^{-9} \\ 6.08571 \times 10^{-5} \\ 950 \end{pmatrix}$$

Resd := $\overrightarrow{Y - Q(m, n, x_0, X)}$

"Too beautiful not to be true" [Dirac]

$\eta := 0..2200$



Fonction homographique complète

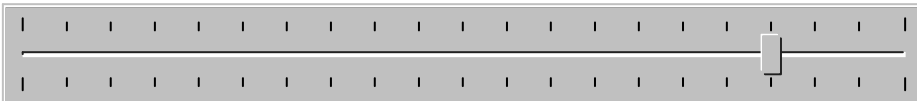
XY :=

	0	1
0	0.010	0.990
1	0.011	...

$$(X \ Y) := \begin{pmatrix} XY^{(0)} & XY^{(1)} \end{pmatrix}$$

$x := 0.01, 0.0101..1$

j :=



$$\text{homograph}(a, b, c, x) := \frac{(1 - a \cdot x)}{(b + c \cdot x)}$$

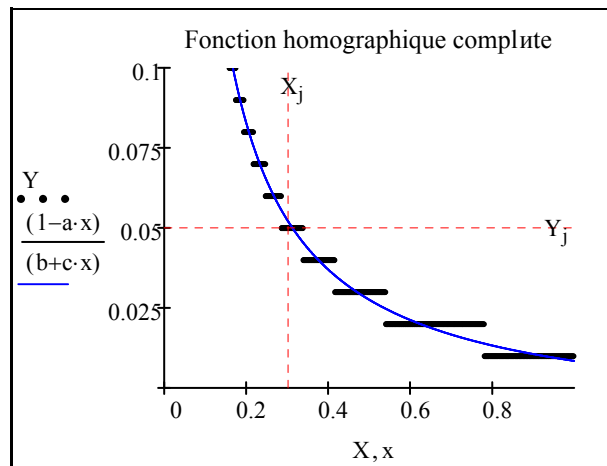
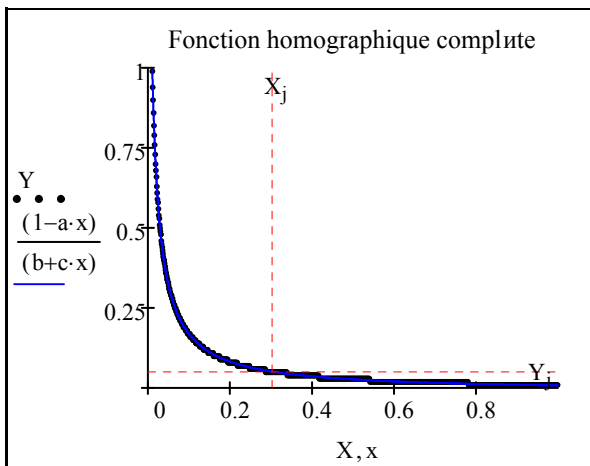
$$\begin{pmatrix} a \\ b \\ c \end{pmatrix} := \begin{pmatrix} 0.5 \\ 0.5 \\ 50 \end{pmatrix}$$

Given $\overrightarrow{\text{homograph}(a, b, c, X) - Y} = 0$

$j = 285$

$$\begin{pmatrix} a \\ b \\ c \end{pmatrix} := \text{Minerr}(a, b, c)$$

$$\begin{pmatrix} a \\ b \\ c \end{pmatrix} = \begin{pmatrix} 0.56 \\ 0.49 \\ 51.1 \end{pmatrix}$$



Decimate an XY data set

```
Decimate(V,n) :=
  k ← 0
  for i ∈ 0..n..last(V)
    outk ← Vi
    k ← k + 1
  out
```

$$n := 110 \quad \begin{pmatrix} X_d \\ Y_d \end{pmatrix} := \begin{pmatrix} \text{Decimate}(XY^{(0)}, n) \\ \text{Decimate}(XY^{(1)}, n) \end{pmatrix}$$

$$XY := \text{augment}(X_d, Y_d)$$

$$(X \ Y) := (XY^{(0)} \ XY^{(1)})$$

$$\text{homograph}(a, b, c, x) := \frac{(1 - a \cdot x)}{(b + c \cdot x)} \quad \begin{pmatrix} a \\ b \\ c \end{pmatrix} := \begin{pmatrix} 0.5 \\ 0.5 \\ 50 \end{pmatrix}$$

Given $\xrightarrow{\hspace{2cm}}$ $\text{homograph}(a, b, c, X) - Y = 0$

$$\begin{pmatrix} a \\ b \\ c \end{pmatrix} := \text{Minerr}(a, b, c) \quad \begin{pmatrix} a \\ b \\ c \end{pmatrix} = \begin{pmatrix} 0.595 \\ 0.495 \\ 50.871 \end{pmatrix}$$

