Model (valid for all the figures):

Derivative

**Gauss-noise likelihood**

Derivative for xc

With

**Poisson noise likelihood**

Derivative

Second derivative

With

Cramer-Rao bound (scalar unbiased case)

Fisher information

**Suppl. Fig. 3**

Gaussian noise, SNR 5-108, Data size 15, Gauss amplitude (A) 500, x0 and y0 at center, Gauss width (sigma) 1, Gaussian baseline (b) 10

Noise-Std-deviation = A / (SNR \* log(10)) =

**Suppl. Fig. 7**

Gaussian noise, SNR 5-103, Data size 15, Gauss amplitude (A) 500, x0 and y0 at center, Gauss width 1, Gaussian baseline 10

**Suppl. Fig. 8**

Poisson noise, Data size 15, Amplitude 5 – 200, x0 and y0 at center, Gauss width 2, Gauss baseline 5