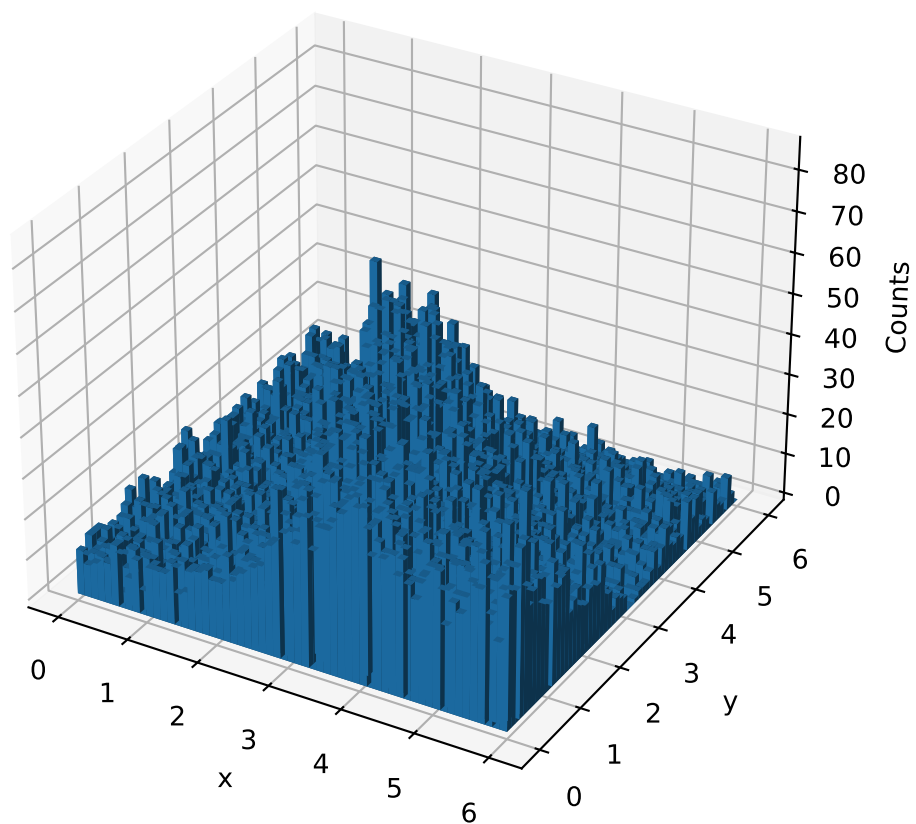
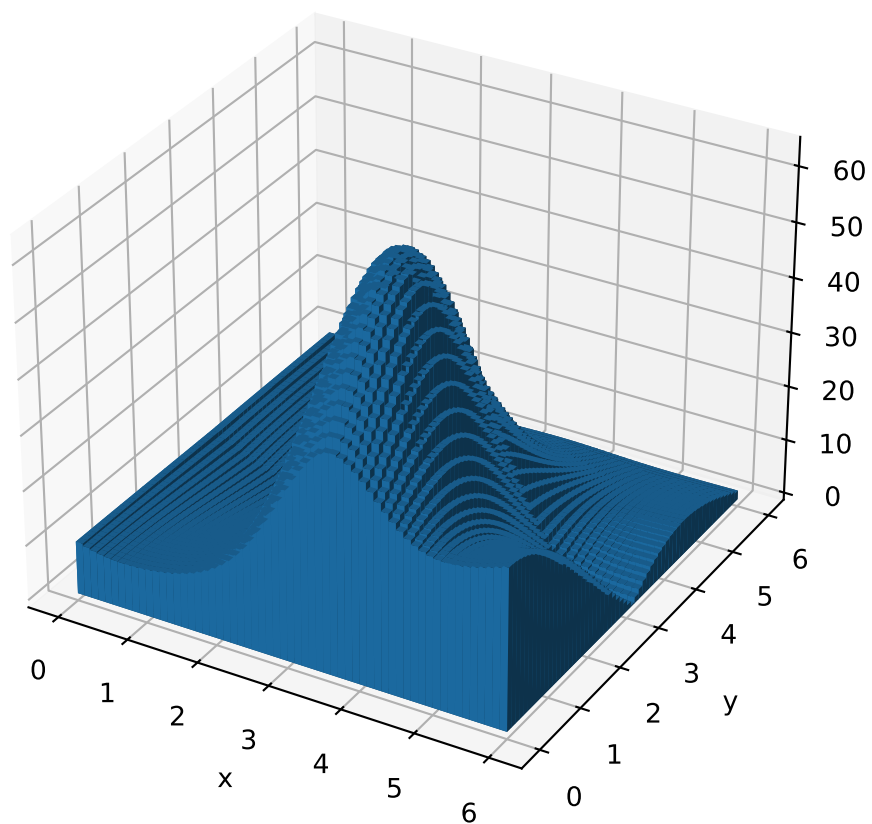
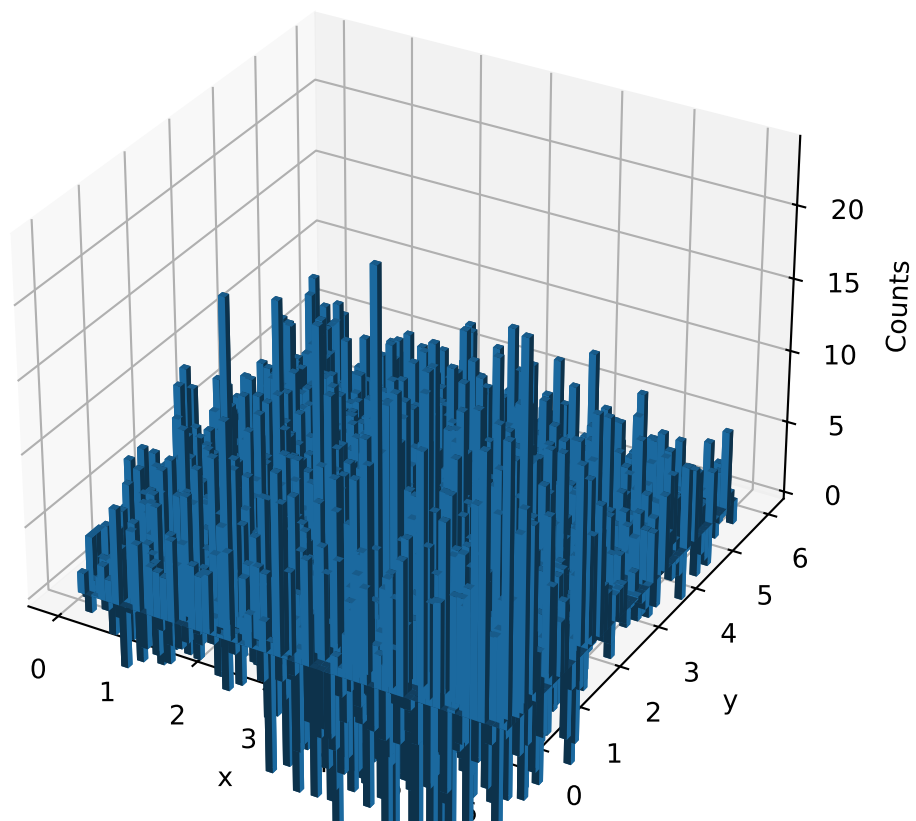
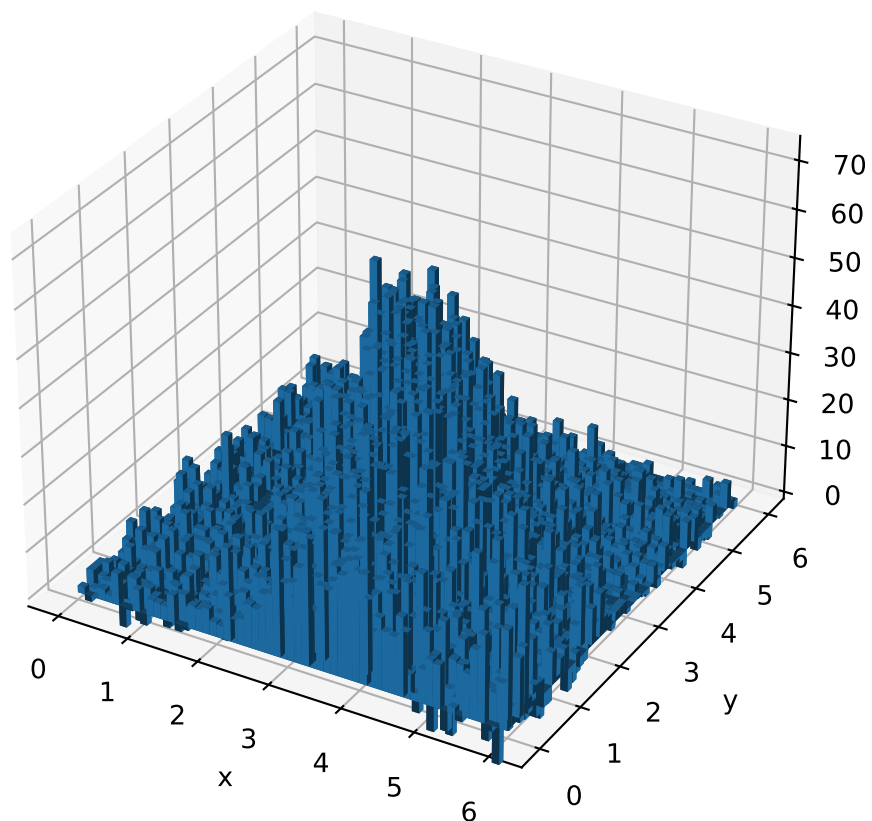


Data (hdata)

Fit: signal + $\beta \cdot \text{hbkg}$ 

Residuals: data - fit

Data - $\beta \cdot \text{hbkg}$ 

Fit summary

$$A = 54 \pm 0.6093$$

$$\text{mux} = 3.517 \pm 0.006245$$

$$\text{sigx} = 0.6995 \pm 0.005836$$

$$\text{muy} = 1.904 \pm 0.01719$$

$$\text{sigy} = 1.382 \pm 0.01486$$

$$\text{beta} = 0.2451 \pm 0.002635$$

$$\chi^2 = 4111.1, \text{ dof} = 3565, p = 3.38\text{e-}10$$

$$\text{Estimated total signal events} = 29975.169 \pm 288.401$$

Fit the data with bump + background.

Signal count = sum of fitted bump over all bins.

Error comes from fit's own uncertainties: let each fitted number wiggle by its error and see how the sum would change.

Combine those changes and take square root