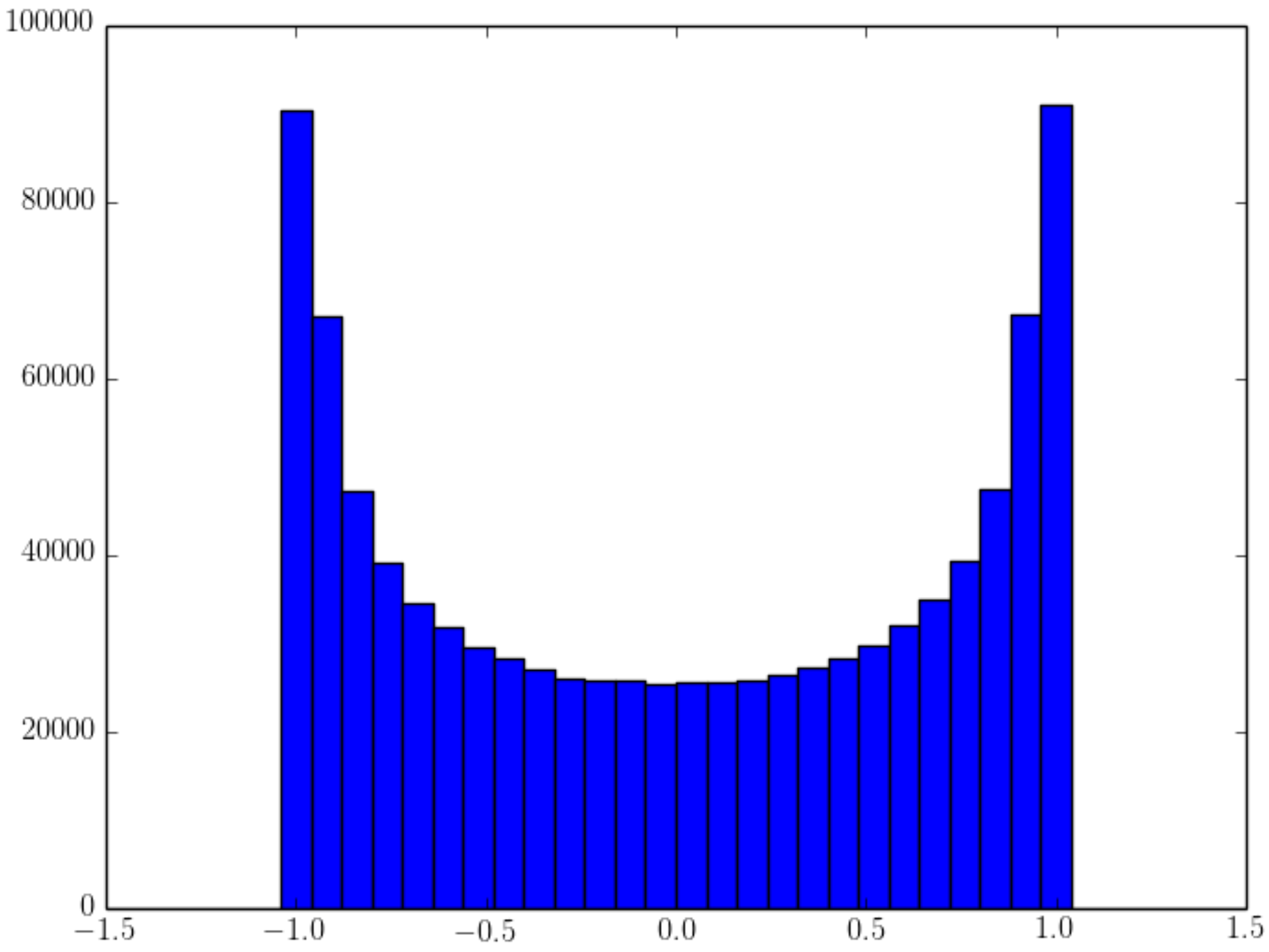
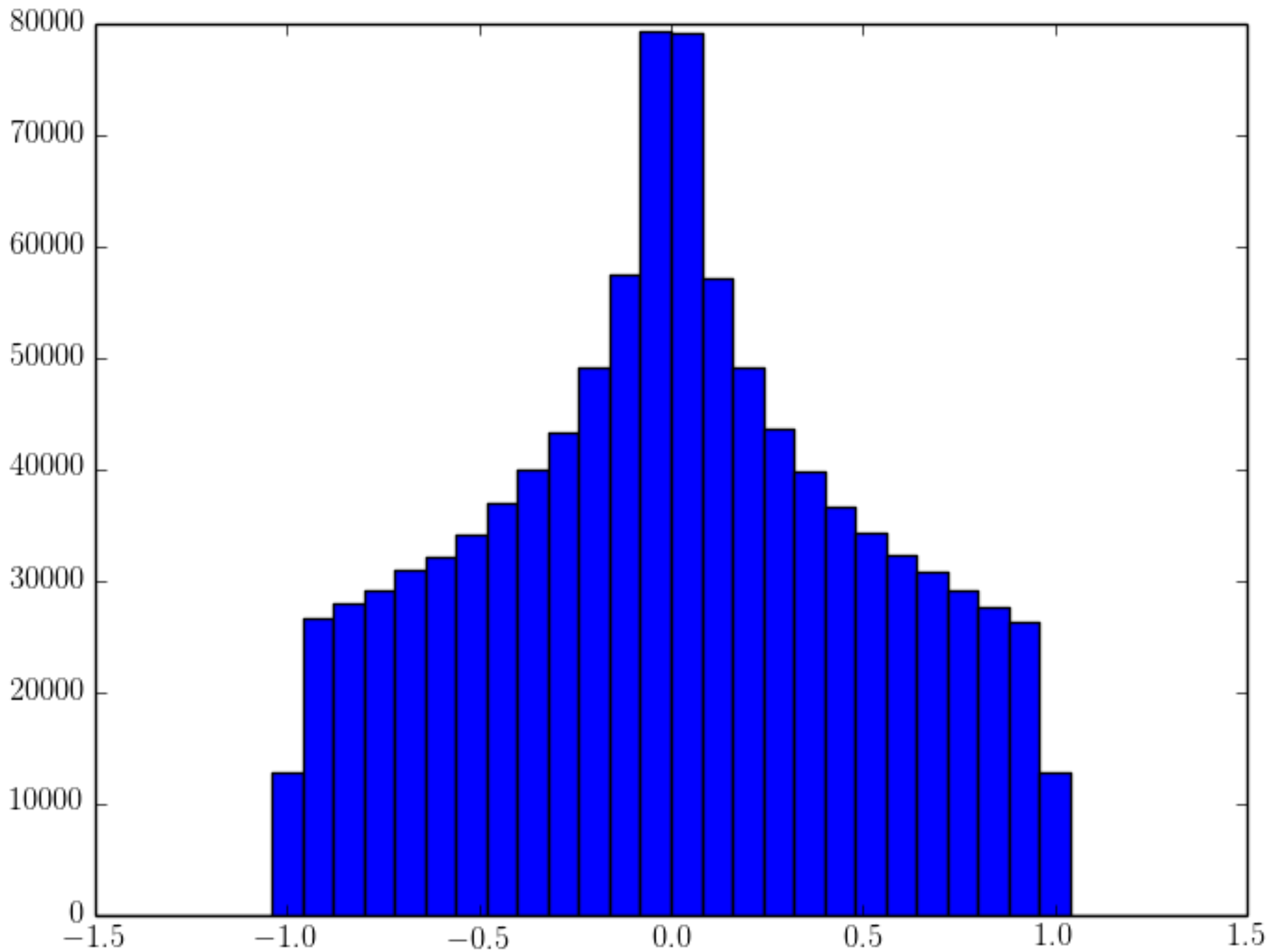
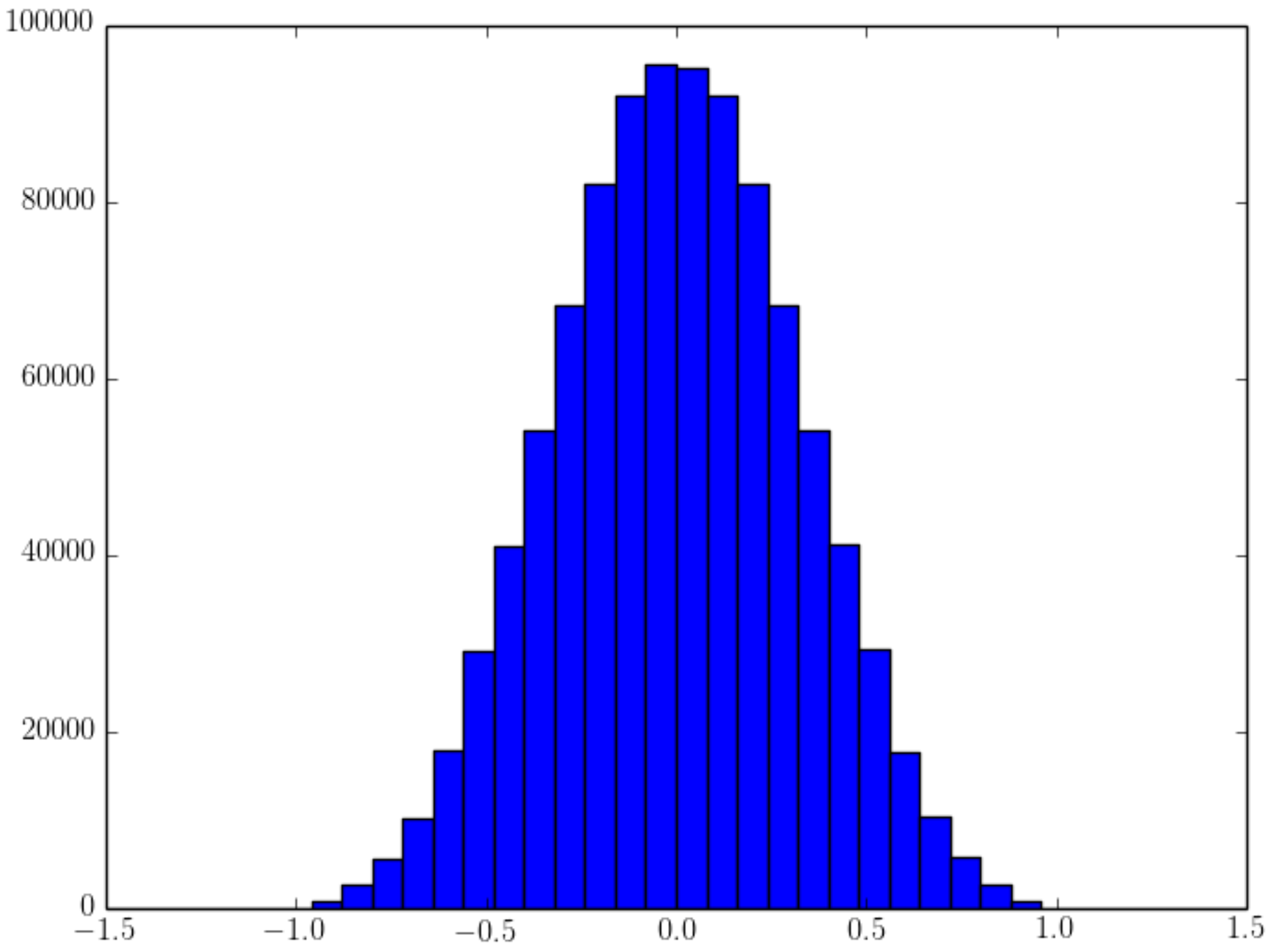
Histogram of a made-up random variable X.



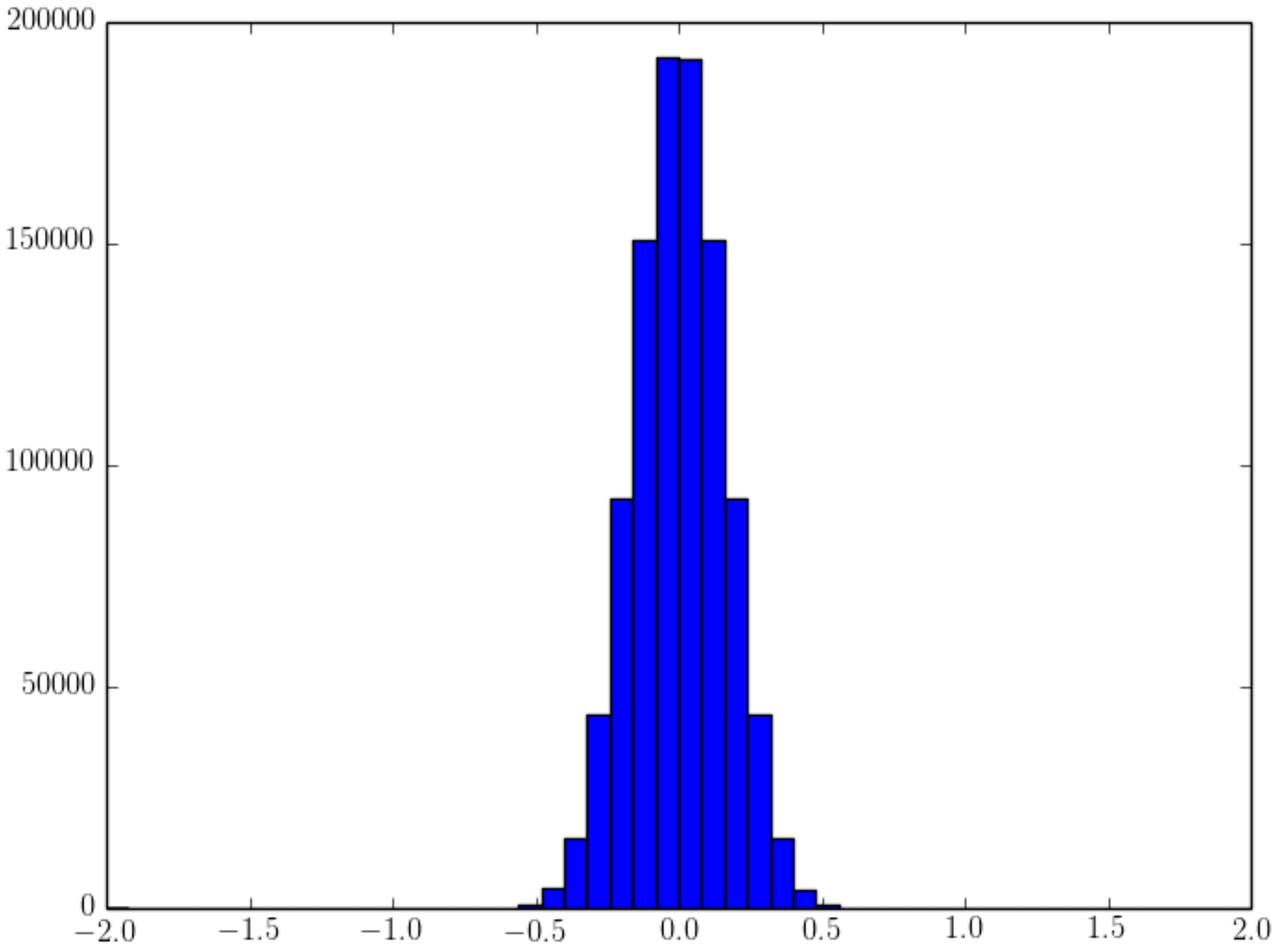
Histogram of $Y_2=(X_1+X_2)/2$



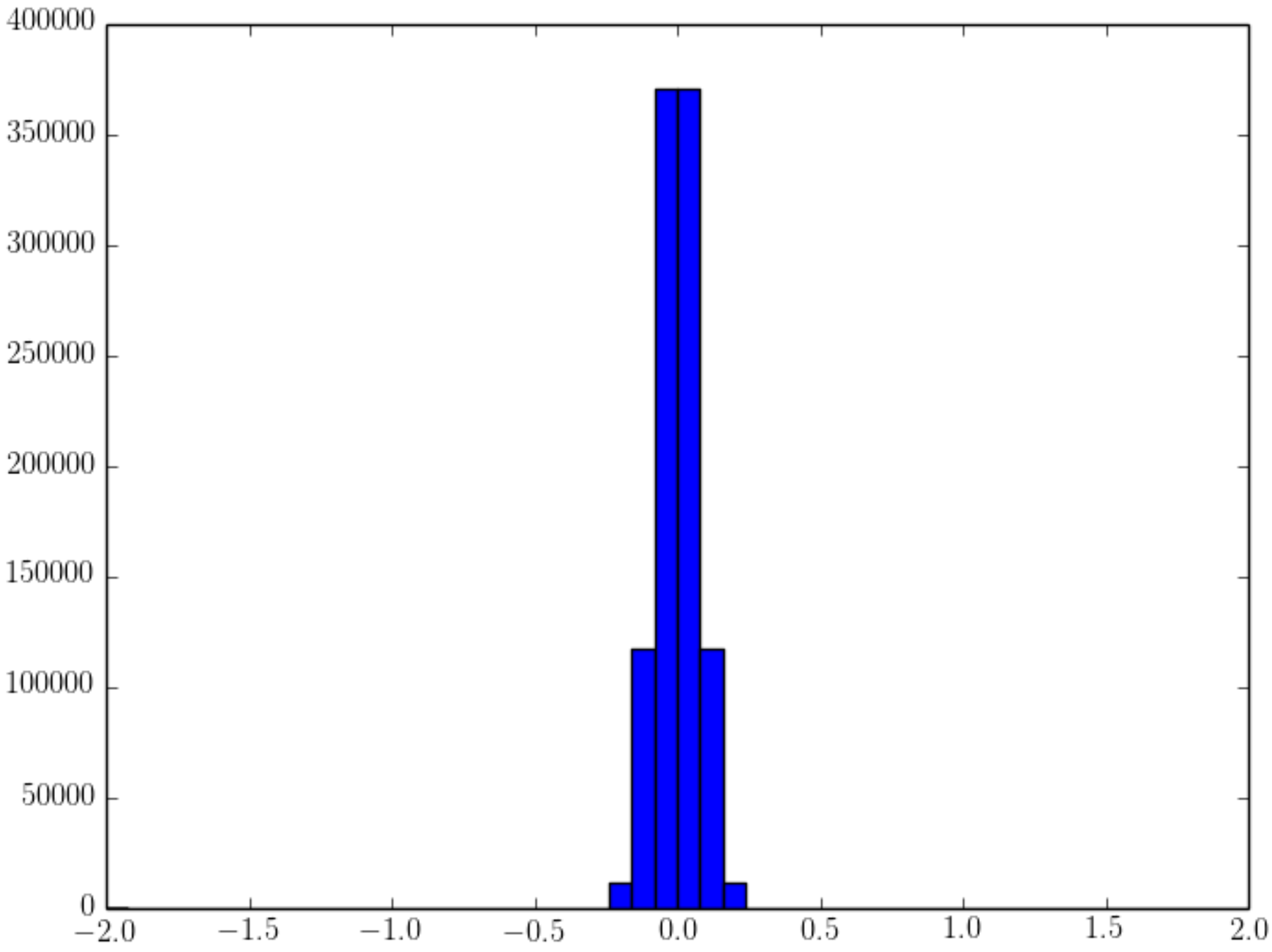
Histogram of $Y_5=(X_1+\ldots+X_5)/5$



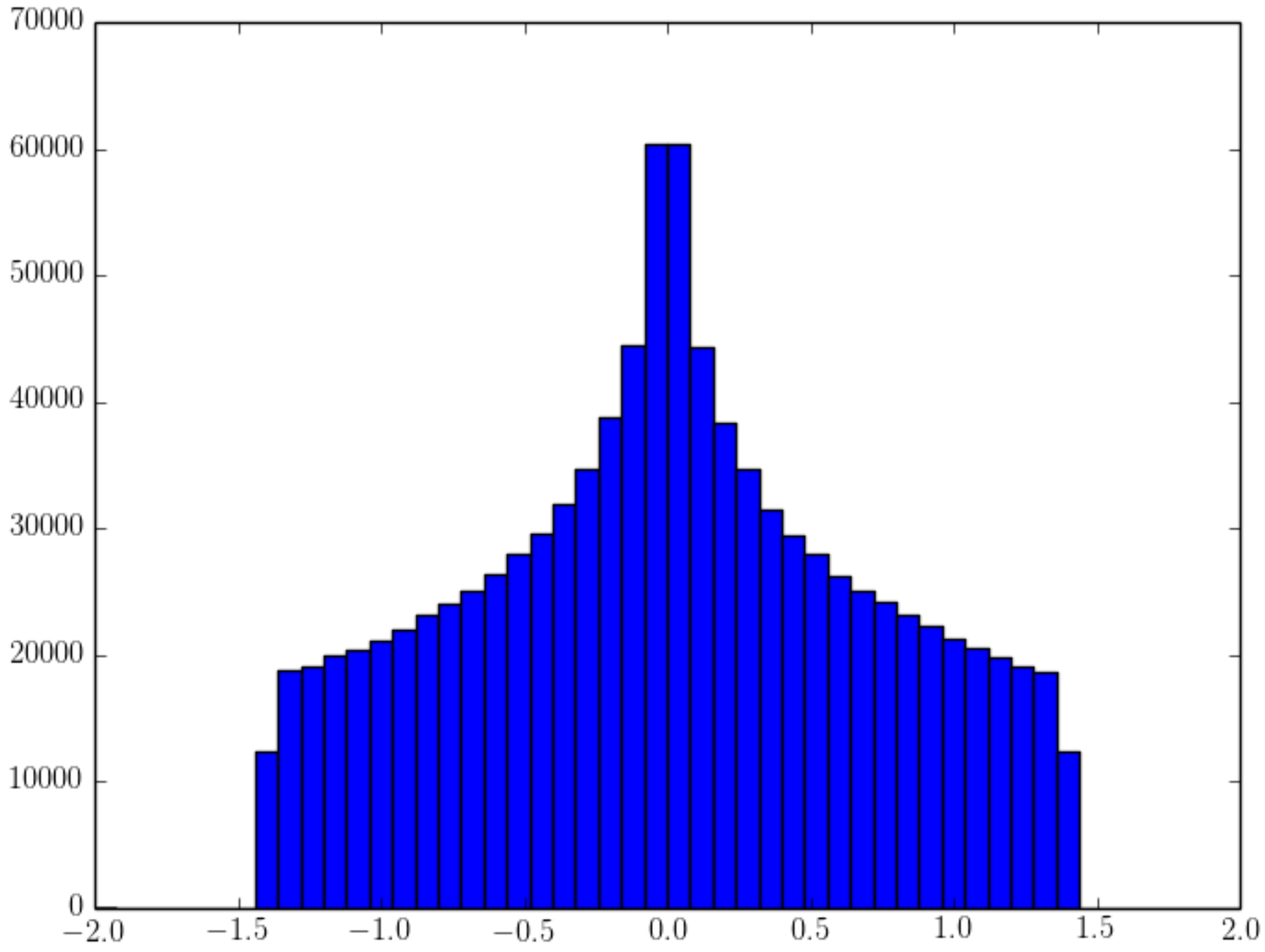
Histogram of $Y_{20}=(X_1+\ldots+X_{20})/20$



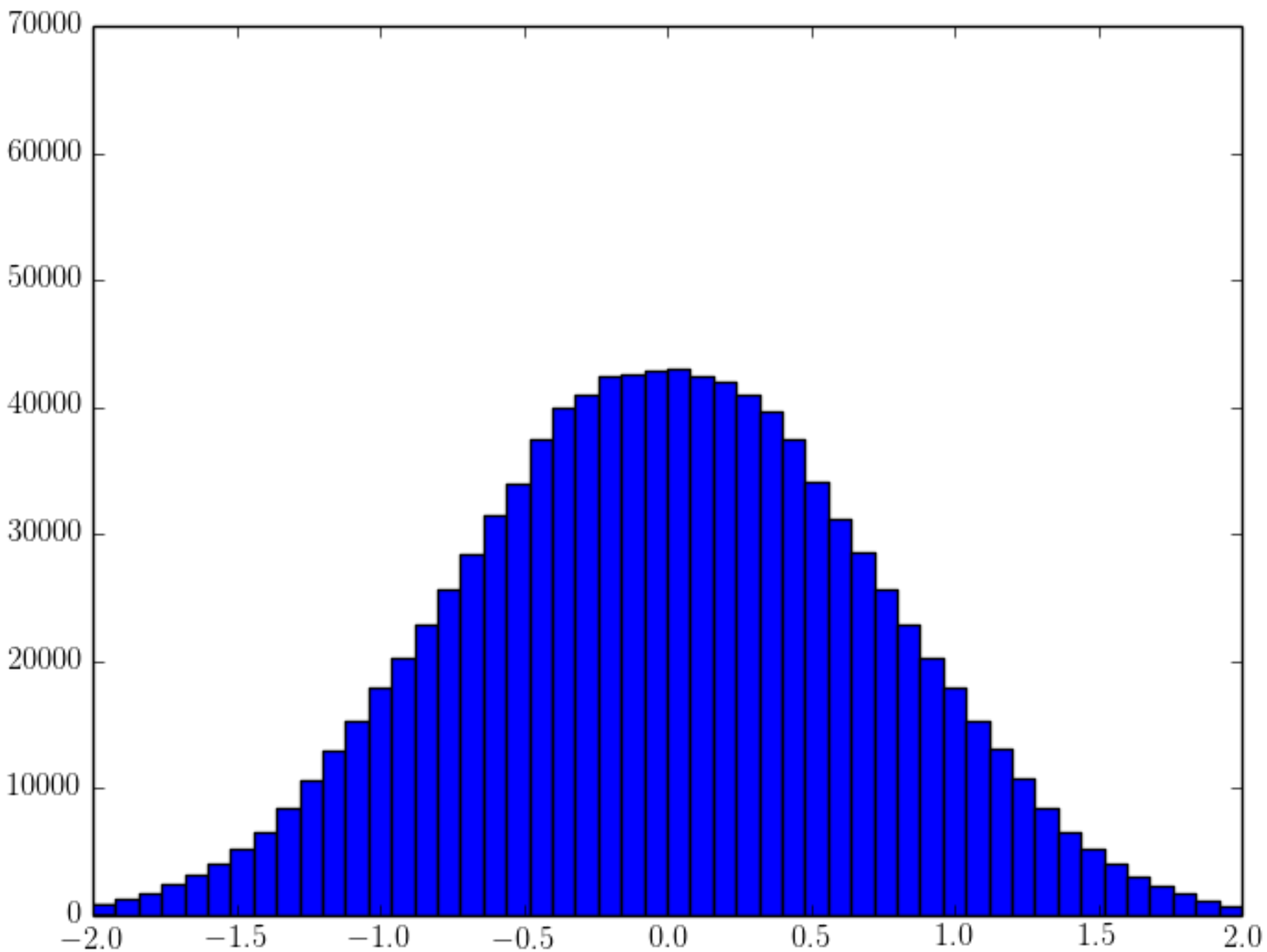
Histogram of $Y_{100}=(X_1+\ldots+X_{100})/100$



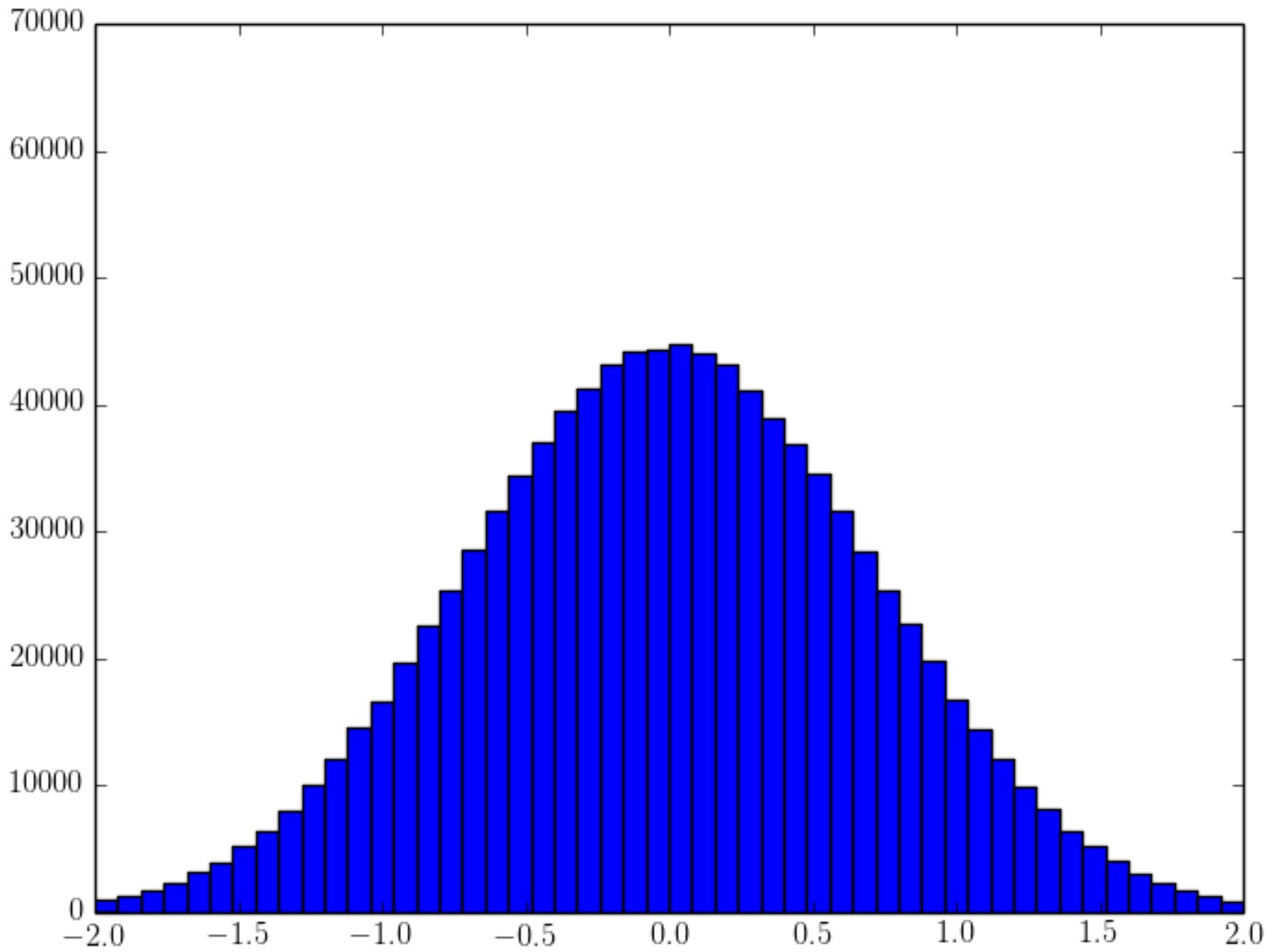
Histogram of $Z_2=(X_1+X_2)/2^{1/2}$



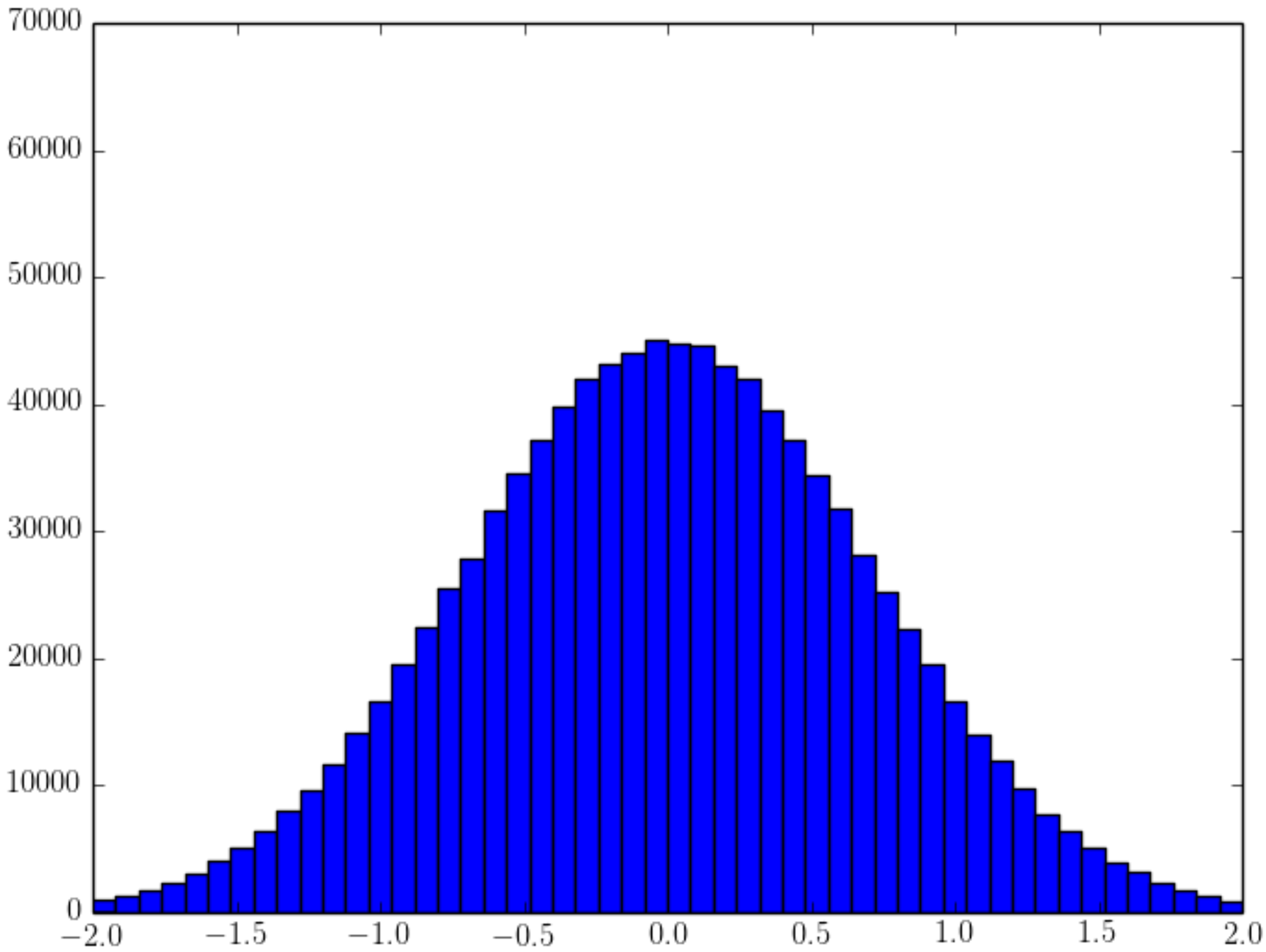
Histogram of $Z_5=(X_1+\ldots+X_5)/5^{1/2}$



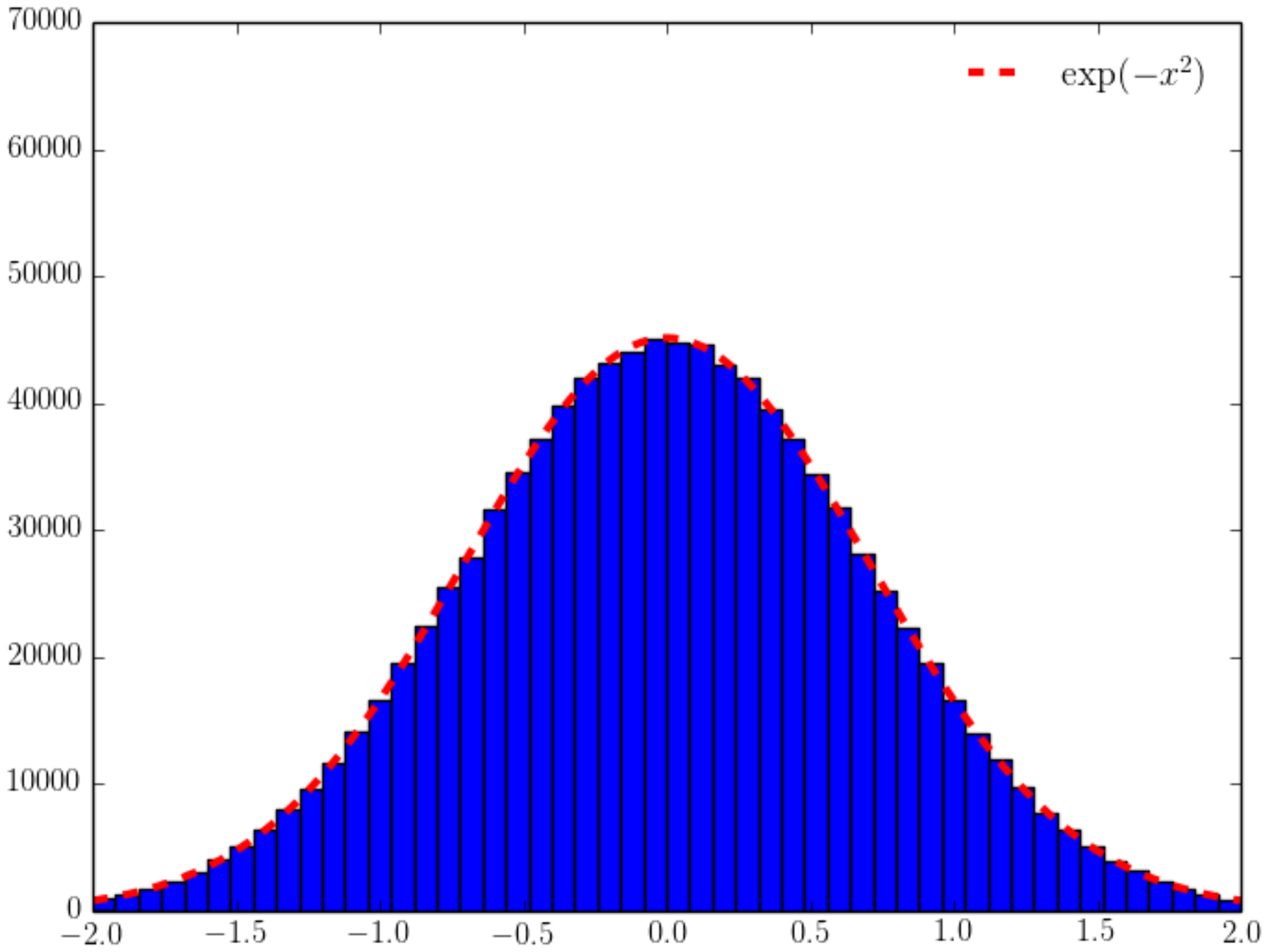
Histogram of $Z_{20}=(X_1+\ldots+X_{20})/20^{1/2}$



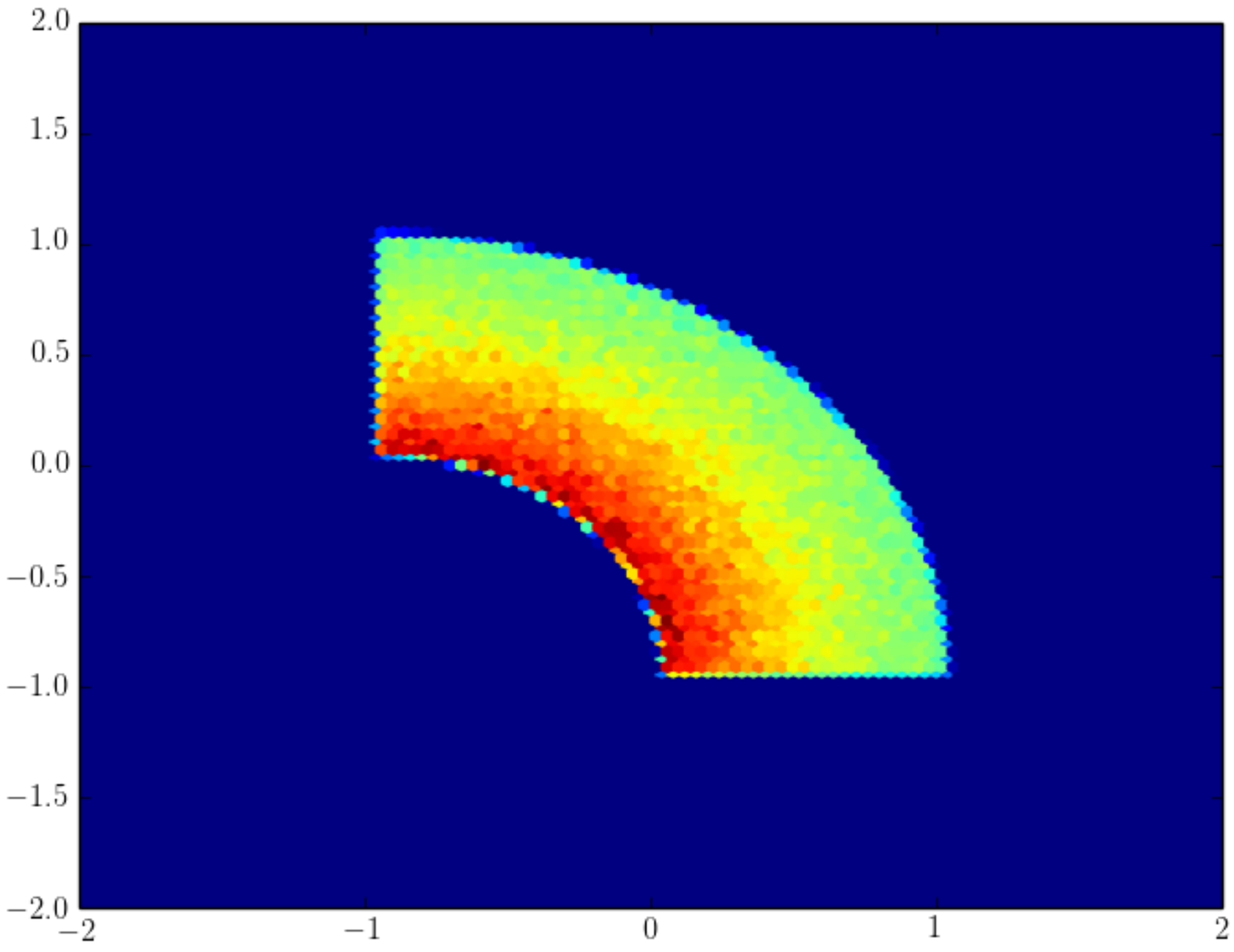
Histogram of $Z_{100}=(X_1+\ldots+X_{100})/100^{1/2}$



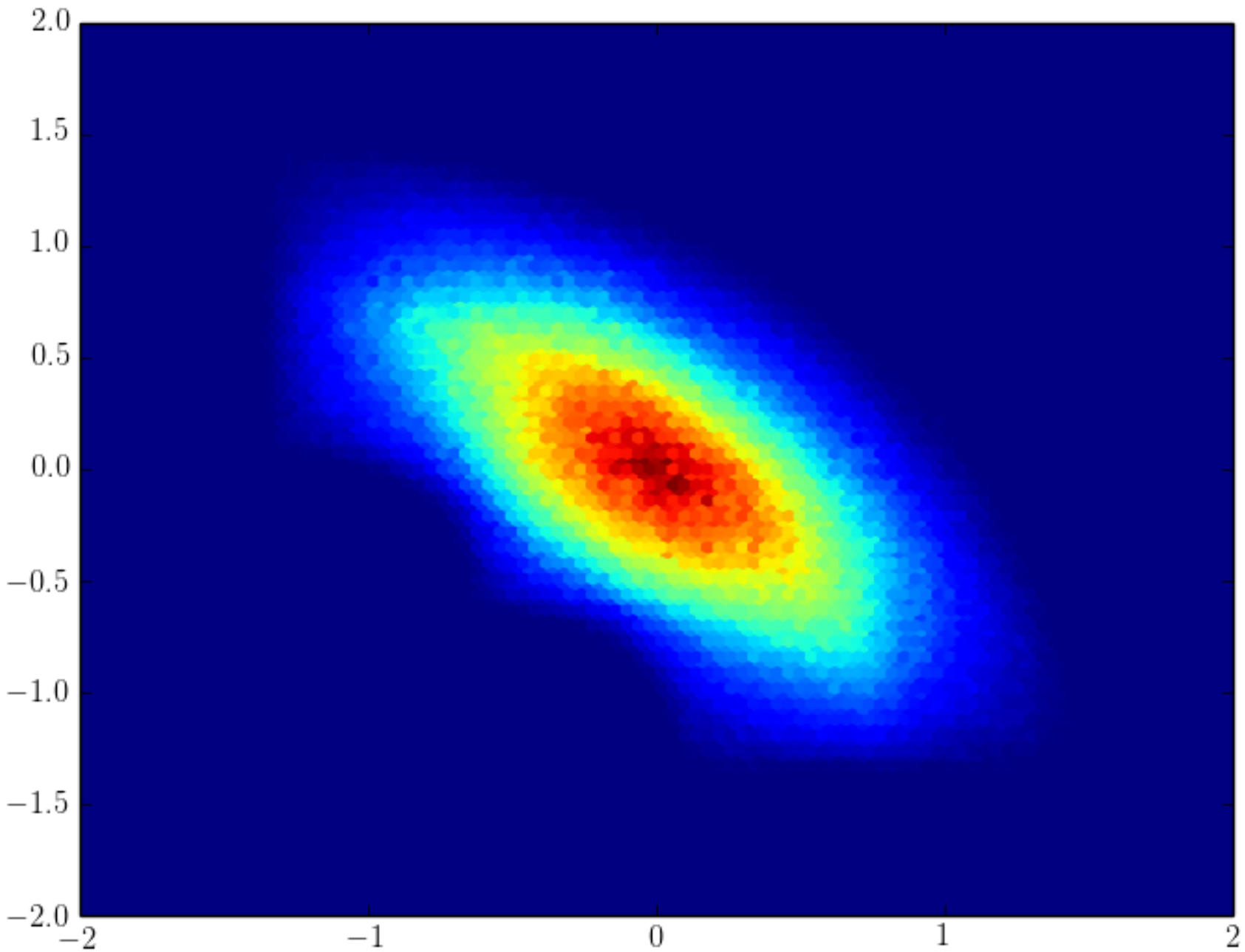
Histogram of $Z_{100}=(X_1+\ldots+X_{100})/100^{1/2}$



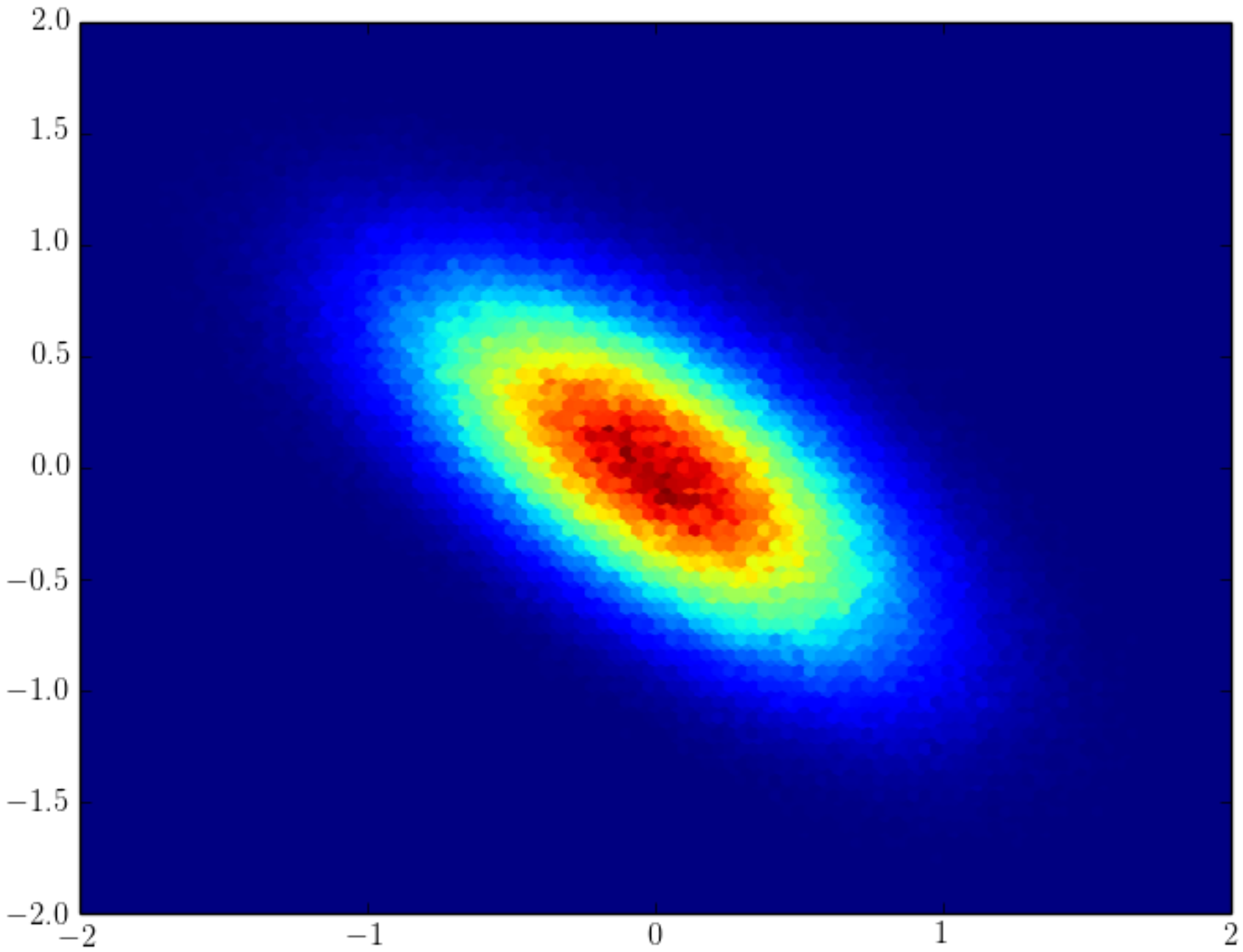
Histogram of a made-up 2D random variable $\vec{x}$



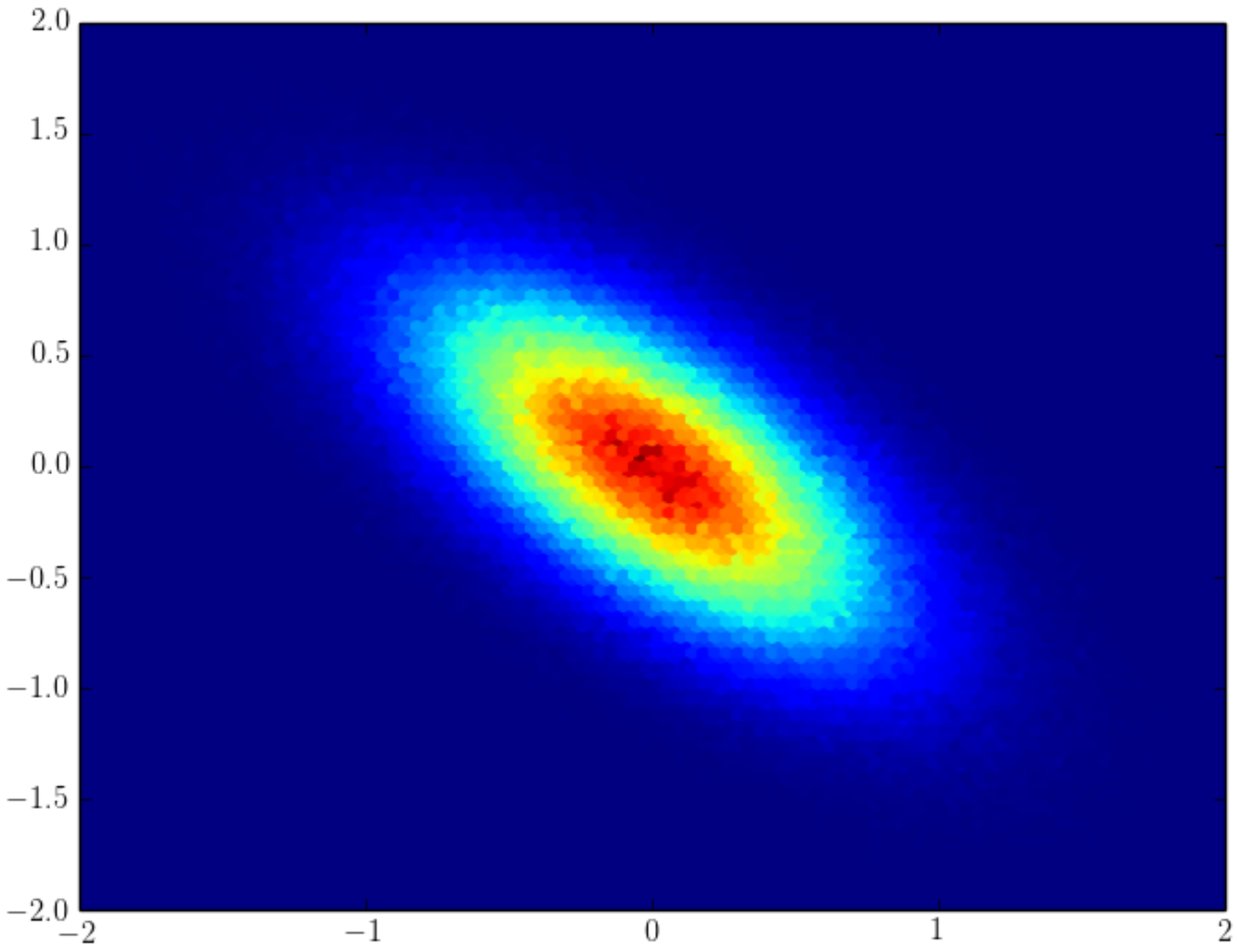
$$\vec{z}_2 = (\vec{x}_1 + \vec{x}_2)/\sqrt{2}$$



$$\vec{z}_5 = (\vec{x}_1 + \cdots + \vec{x}_5)/\sqrt{5}$$



$$\vec{z}_{20} = (\vec{x}_1 + \cdots + \vec{x}_{20})/\sqrt{20}$$



$$\vec{z}_{100} = (\vec{x}_1 + \cdots + \vec{x}_{100})/\sqrt{100}$$