Random state = 6

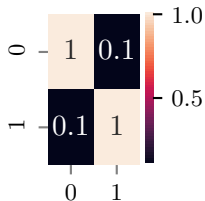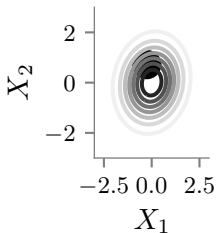**Covariance Matrix**

Contour of pdf

Visualising the point