Random state = 2

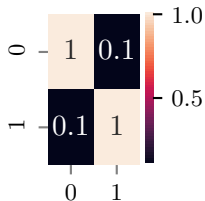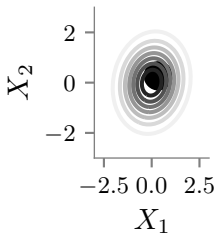### Covariance Matrix

Contour of pdf

Visualising the point