



## Normal Correlation

### 1 Why

What is the correlation between components of a normal density.

### 2 Result

**Proposition 1.** *Let  $g \sim \mathcal{N}(\mu, \Sigma)$ . Then the correlation between  $i$  and  $j$  is*

$$\frac{\Sigma_{ij}}{\sqrt{\Sigma_{ii}\Sigma_{jj}}}$$