

## Normal Differential Entropy

## 1 Why

What is the differential mutual information between two components of a multivariate normal.

## 2 Result

**Proposition 1.** Let  $g \sim \mathcal{N}(\mu, \Sigma)$  Then the differential entropy of g is

$$\frac{1}{2}\ln\left((2\pi e)^d\det\Sigma\right)$$

Matrix Inverses
Inverse Elements

Element Functions