Why

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

Result

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

$$-\frac{1}{2} \ln(1 - \rho_{ij}^2)$$

where ρ_{ij} *is the correlation between components* i *and* j.