

CONSTRAINED QUADRATIC FORM EXTREMA

Why

Eigenvalues

Result

PROPOSITION 1. A necessary condition for a maximizer of $x^T A x$ subject to $x \in \mathbb{R}^n$ and $x^T x = 1$ is that $A x = \lambda x$ where λ is the Lagrange multiplier... TODO: lagrange multiplier, gradient, quadratic form, necessary conditions, etc.

