



Constrained Quadratic Form Extrema

1 Why

Eigenvalues

2 Result

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

Constrained Quadratic Form Extrema

Quadratic Forms

Identity Matrices

Matrices

Vectors

N-Dimensional Space

Fields

Real Numbers

Space

Group

Rational Numbers

Integer Numbers

2

A

O

