QR Factorizations

1 Why

TODO

2 Definition

TODO

2.1 Notation

TODO

Let $A \in \mathbf{R}^{m \times n}$. Something something

$$A = QR.$$

QR Factorizations

Real Matrices → Orthonormal Matrices

Matrices → Orthonormal Vectors

Inner Product Norm

Inner Products → Norms

Functionals

Vectors

Fields → $_2$N-Dimensional Space → Absolute Value

Groups → Space → Length → Real Numbers