Matrix Determinant of Inverse

1 Why

2 Result

Proposition 1. *The determinant of an invertible square real matrix is the multiplicative inverse of the determinant of the matrix.*

Proof. Let $A \in \mathbf{R}^{n \times n}$ be invertible. We want to show that

$$\det\left(A^{-1}\right) = (\det A)^{-1}.$$

□