The 2x2 MIT theorem

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Abstract

In this paper, I describe the 2x2 MIT theorem.
The paper ends with "The End"

Introduction

The 2x2 MIT theorem is useful in many fields including
engineering, economics, finance and statistics.
In this paper, I describe the 2x2 MIT theorem.

The 2x2 MIT theorem

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix} = \begin{pmatrix} a & b \\ c & d \end{pmatrix}^{-1} = \begin{pmatrix} a & b \\ c & d \end{pmatrix}^{T}$$

$$\iff$$

$$\left(\left(b = -\sqrt{1-a^2} \vee b = \sqrt{1-a^2} \right) \wedge c = b \wedge d = -a \right) \vee ((a = -1 \vee a = 1) \wedge b = 0 \wedge c = 0 \wedge (d = -1 \vee d = 1))$$

The End