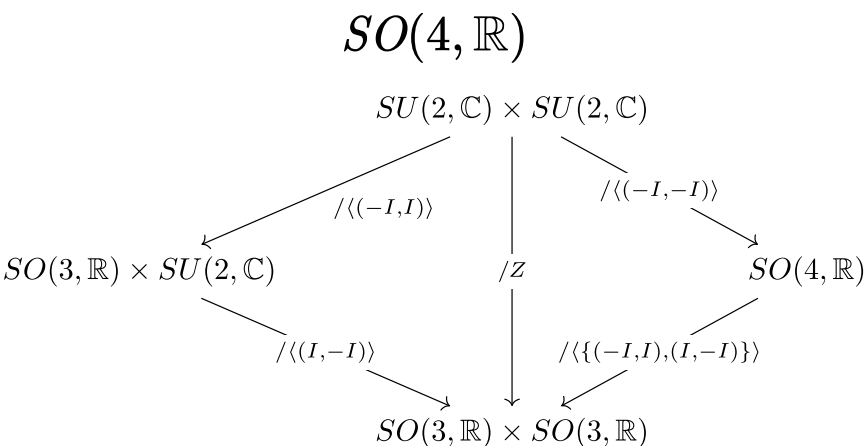


This note, that [was found here](#), as a part of [a collection](#) is written (completely with human hands) by [Rupadarshi Ray](#), was created on September 13, 2025 5:21:45 PM, was last modified on June 18, 2026 5:27:13 PM, and was exported on September 7, 2026 2:50:38 PM.



Using the usual embedding

$$\begin{aligned} U(2, \mathbb{C}) &\hookrightarrow SO(4, \mathbb{R}) \\ A + iB &\mapsto \begin{bmatrix} A & B \\ -B & A \end{bmatrix} \end{aligned}$$

we compute

$$\begin{aligned} SO(4, \mathbb{R}) / U(2, \mathbb{C}) &\cong SO(4, \mathbb{R}) / SU(3, \mathbb{C}) / U(2, \mathbb{C}) / SU(3, \mathbb{C}) \\ &\cong SO(3, \mathbb{R}) / SO(2)(\mathbb{R}) \cong S^2 \end{aligned}$$

Current note has 0 direct children and 0 total descendants.

- [squishy](#).
 - SO
 - $SO(4, \mathbb{R})$

And it has 5 siblings.

- [squishy](#).
 - SO
 - $SO(x^2 + y^2 - \sqrt{2}z^2)(\mathbb{Z}[\sqrt{2}])$
 - $SO(2)(\mathbb{R})$
 - $SO^+(2, 2)(\mathbb{R})$
 - $SO(3, \mathbb{R})$
 - $SO(4, \mathbb{R})$