

Stiefel(4,2) (& 3,2)

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$$S^2 \rightarrow V \quad \text{with } V = \text{Stiefel}(4,2)$$

$$\downarrow$$

$$S^3$$

$$\begin{array}{c} \rightarrow \pi_2(S^3) \\ \leftarrow \text{Zero map, using the "multiplication by } i \in \mathbb{H} \text{" section.} \end{array}$$

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$$\text{So } \pi_2(V) = \pi_2(S^2) = \mathbb{Z}.$$

$$S^1 \rightarrow V \quad \text{with } V = \text{Stiefel}(3,2)$$

$$\downarrow$$

$$S^2$$

$$V = T_1 S^2 = SO(3)$$

$$= S^3 / \mathbb{Z}/2$$

So π_2 is trivial.