

[Colour facets of a polytope
Colour "vertices" of its dual]

Colouring →

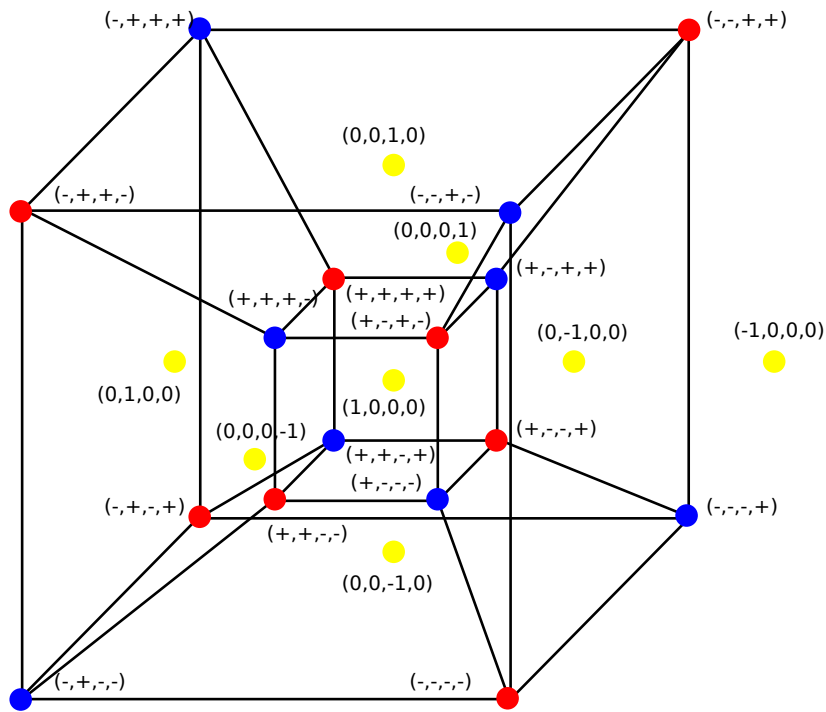


FIGURE 1. The vertices of the dual 24-cell C^* coloured in Blue, Red, and Yellow.

Black dots
"O"

White dots
"I"

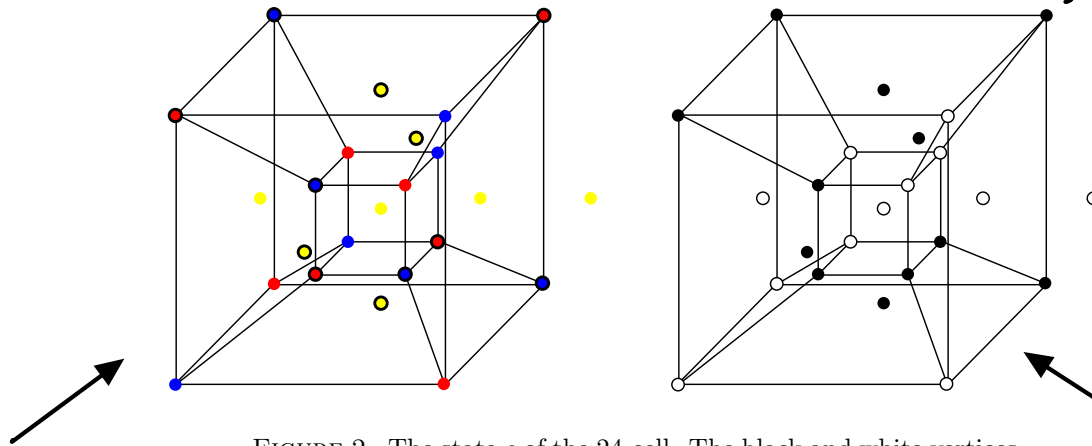


FIGURE 2. The state s of the 24-cell. The black and white vertices represent the status I and O respectively (right). In the left figure we show both the colouring and the state.

State

State + Colouring
||

Manifold + map $\rightarrow S^1$.

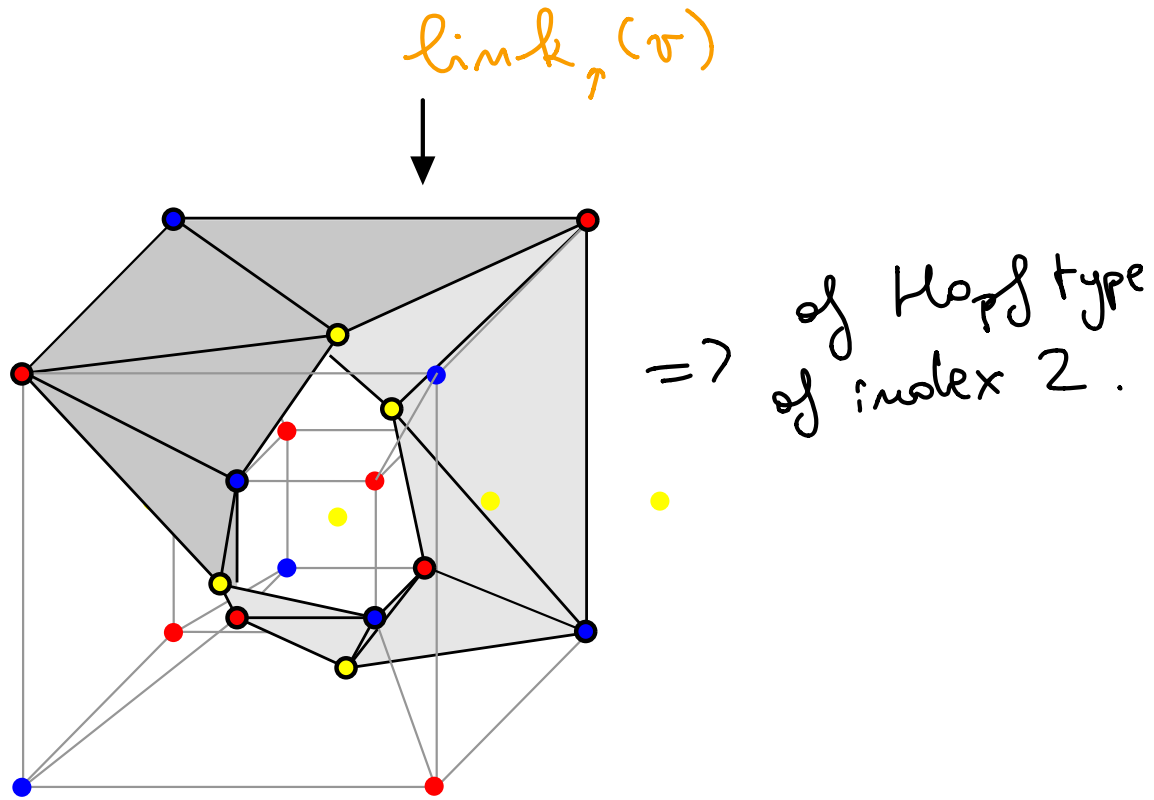


FIGURE 3. The descending link is a band decomposed into 12 triangles. The ascending link is isomorphic to it, and altogether they form two bands that collapse onto a Hopf link in S^3 .