

Diagram illustrating the classification of  $SO(2, 4)$  representations, showing the branching of the adjoint representation (top) and the decomposition of the tensor product of two adjoints (bottom).

The top diagram shows the branching of the adjoint representation of  $SO(2, 4)$  into the adjoint representations of the subgroups  $SO(1, 4)$ ,  $SO(2, 2)$ , and  $SO(1, 3)$ .

The bottom diagram shows the decomposition of the tensor product of two adjoint representations of  $SO(2, 4)$  into the direct sum of representations of the subgroups  $SO(1, 4)$ ,  $SO(2, 2)$ , and  $SO(1, 3)$ .