

Good Christian Men, Rejoice

$$1 = C$$

14th Century German Melody

The diagrams illustrate the decomposition of tensor products of fundamental representations of $SU(5)$ into irreducible representations. The representations are labeled with numbers 1, 2, 3, 4, 5, 6, 7, and their conjugates (indicated by a superscript minus sign). The decomposition is shown by the arrangement of horizontal bars (representing irreducibles) between vertical lines (representing the tensor product).

Row 1: $1 \otimes 1 = 1$; $1 \otimes 5 = 1 + 4$; $5 \otimes 5 = 1 + 3 + 4 + 5 + 6$; $5 \otimes 5 = 1 + 3 + 4 + 5 + 6$

Row 2: $5 \otimes 5 = 1 + 3 + 4 + 5 + 6$; $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$

Row 3: $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$

Row 4: $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$; $1 \otimes 5 = 1 + 4$

Row 5: $1 \otimes 24 = 1 + 4 + 5 + 6 + 7$