

Figure 1 displays the decomposition of the tensor product of two adjoint representations of $SU(3)$ into irreducible representations. The figure is organized into a 3x3 grid of 27 3x3 matrices, each representing a specific component of the decomposition. The rows and columns are labeled with the irreducible representations involved in the decomposition.

The rows are labeled as follows:

- Row 1: $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$
- Row 2: $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$
- Row 3: $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$

The columns are labeled as follows:

- Column 1: $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$
- Column 2: $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$
- Column 3: $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$, $\omega_{1^1+}^{\#1} \omega_{1^1+\alpha\beta}^{\#2}$

The matrices are color-coded to indicate the presence of non-zero entries (red) and zero entries (blue). The pink cells represent the decomposition of the tensor product into irreducible representations.