On the 27-plet unitary symmetry operator.

Summary: The unitary spin-tensor operator transforming as the representation $[420]$ in $SU(3)$ (the 27-plet) is discussed in detail. Using a recent result for the unique (nonarbitrary) splitting of the multiplicity, complete algebraic formulas are determined for the complete 27-plet operator. Symmetry properties of the 27-plet operator are given. Applications to both particle and nuclear physics are discussed.

MSC:
81R20 Covariant wave equations in quantum theory, relativistic quantum mechanics
81R10 Infinite-dimensional groups and algebras motivated by physics, including Virasoro, Kac-Moody, $W$-algebras and other current algebras and their representations

Full Text: DOI

References:
[7] (scJ. D. Louck), to be published.
[17] See also: (scDalitz) Ref. (17)
[18] Dalitz, R.H., ()

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