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Extension of KNTZ trick to non-rectangular representations. (English) Zbl 1420.57027

Phys. Lett., B 793, 464-468 (2019).

Summary: We claim that the recently discovered universal-matrix precursor for the F functions, which define the differential expansion of colored polynomials for twist and double braid knots, can be extended from rectangular to non-rectangular representations. This case is far more interesting, because it involves multiplicities and associated mysterious gauge invariance of arborescent calculus. In this paper, we make the very first step – reformulate in this form the previously known formulas for the simplest non-rectangular representations $[r, 1]$ and demonstrate their drastic simplification after this reformulation.

MSC:

57M25 Knots and links in the 3-sphere (MSC2010)
57M27 Invariants of knots and 3-manifolds (MSC2010)

Full Text: DOI

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