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Chain Polynomials and Link Polynomials

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Abstract Let G be a family of homeomorphic graphs and consider the knots and links whose projections are the medial graphs of the graphs in G . It is shown that there is a polynomial which subsumes, as special cases, all the bracket polynomials of these knots and links, and that this polynomial can be obtained by a simple substitution in the chain polynomial (introduced in [5]) associated with the family G .

It is further shown that for a special class of links there is a similar result for the Homfly polynomial. This latter result generalizes a theorem of Jaeger [2].