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7. Lie Groups and Lie Algebras

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Melville, Duncan J., St. Lawrence University, USA

A survey of quantum deformation results

The representation theory of a quantum group at a generic value of the parameter q is often closely related to that of the underlying algebra. For weight representations, the most precise alignment occurs when the quantum and corresponding classical representations have the same character. In this case, we speak of a true quantum deformation. Most quantum deformation results are obtained using the A-form technique introduced by Lusztig. We present here a survey of known quantum deformation results obtained using this technique.