

TWISTED RUIJSENAARS MODEL

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ABSTRACT

The quantum Ruijsenaars model is a q -analogue of the Calogero-Moser model, described by n commuting partial difference operators (quantum hamiltonians) h_1, \dots, h_n . In the trigonometric case these operators are also known as Macdonald operators. As it turns out, for each natural number $l > 1$ there exists another integrable system whose quantum hamiltonians have the same leading terms as the l -th powers of h_1, \dots, h_n . I will discuss several ways of arriving at this generalisation.

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