

**FROM KAJIHARA'S TRANSFORMATION FORMULA
TO DEFORMED MACDONALDRUIJSENAARS AND
NOUMISANO OPERATORS**

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ABSTRACT

I will explain how suitable specialisations of Kajiharas transformation formula leads to so called (reproducing) kernel identities for particular generalisations of (trigonometric) difference operators of MacdonaldRuijsenaars as well as NoumiSano type. The transformation formula in question is a far-reaching generalisation of an Euler type transformation formula for basic hypergeometric series, whereas the difference operators include the deformed MacdonaldRuijsenaars operator studied by Sergeev and Veselov.

I will sketch a few applications, including a new proof of the integrability of Sergeev and Veselovs deformed MacdonaldRuijsenaars operator, and, time permitting, indicate some corresponding results at the elliptic level.

The talk is based on joint work w/ Edwin Langmann, Masatoshi.

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