

On $(q; h)$ -Weyl algebras
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We introduce $(q; h)$ -deformation of the Weyl algebra and study the ladders in this algebra, which give the factorization of certain q - and h -difference operators of second order. We also show that the q -deformed universal enveloping algebra $U_q(sl(2, \mathbb{C}))$ is embedded into the tensor product of two $(q; h)$ -Weyl algebras. The results are presented in [1] and [2].

[1] Hilger, S., Filipuk, G., Algebra embedding of $U_q(sl(2, \mathbb{C}))$ into the tensor product of two $(q; h)$ -Weyl algebras, submitted.

[2] Filipuk, G., Hilger, S., A remark on the tensor product of two $(q; h)$ -Weyl algebras, submitted.