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A multivariable generalization of the additive difference Painlevé equation with affine Weyl group symmetry type $D_4^{(1)}$

We construct a multivariable generalization of the additive difference Painlevé equation with the affine Weyl group symmetry of type $D_4^{(1)}$ and give three representations of the Lax forms and generalized hypergeometric special solutions. Also, we show some relations to additive difference Painlevé equations [?] and the q -Garnier system [?] (given as the multivariable generalization of the q -Painlevé equation with the affine Weyl group symmetry of type $D_5^{(1)}$) and Ormerod-Rains' additive difference system [?]. In this talk, we present the results.

REFERENCES

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