

SIDE 14.2



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Systems of difference equations, symmetries and integrability conditions

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Content :

In this talk we introduce a class of systems of difference equations defined on an elementary quadrilateral of the lattice and derive necessary conditions for their integrability. These conditions follow from the requirement that the system admits infinite hierarchies of symmetries, and can be used in the construction of the lowest order symmetries of the system. These considerations are demonstrated with the help of three systems from the class under consideration.

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