

Lie symmetries for equations on lattices

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Abstract

We review different approaches to continuous symmetries of discrete equations. Interesting and useful symmetries are obtained if we either give up the requirement that the symmetries be point ones, or if we consider equations on symmetry adapted and transforming lattices. Ordinary and partial difference equations are considered, as well as differential difference ones.

Joint work with Decio Levi (Universita'di Roma Tre) and others.