

**A CHARACTERIZATION OF FINITE  
MULTIPERMUTATION SOLUTIONS OF THE  
YANG–BAXTER EQUATION**

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**Abstract:** We prove that a finite non-degenerate involutive set-theoretic solution  $(X, r)$  of the Yang–Baxter equation is a multipermutation solution if and only if its structure group  $G(X, r)$  admits a left ordering or equivalently it is poly- $\mathbb{Z}$ .

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**Key words:** Yang–Baxter equation, set-theoretic solution, brace, ordered groups, poly-(infinite cyclic) group.