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Breather interactions in the integrable discrete Manakov system

In this talk we will consider a vector generalization of the Ablowitz-Ladik model referred to as the integrable discrete Manakov system. In the focusing regime, this system admits a variety of discrete vector soliton solutions, referred to as fundamental solitons, fundamental breathers, and composite breathers. We will give a full characterization of the interactions of these solitons and breathers, including the explicit forms of their polarization vectors before and after the interaction. Additionally, the results will be interpreted in terms of a Yang-Baxter refactorization property for the transmission coefficients associated with the interacting solitons.