

MULTIPLE PERIODIC SOLUTIONS FOR A FOURTH-ORDER DISCRETE HAMILTONIAN SYSTEM

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Abstract. By means of a three critical points theorem proposed by Brezis and Nirenberg and a general version of Mountain Pass Theorem, we obtain some multiplicity results for periodic solutions of a fourth-order discrete Hamiltonian system

$$\Delta^4 u(t-2) + \nabla F(t, u(t)) = 0, \text{ for all } t \in \mathbb{Z}.$$

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