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Zhivko S. Athanassov* (zhivko@math.bas.bg), G. Bonchev Str. 8, 1113 Sofia, Bulgaria.

Recurrent Solutions of Difference Equations. Preliminary report.

The existence and properties of recurrent solutions of systems of difference equations are studied. The established conditions for existence of such solutions show that they are closely related to the Lagrange stability. Conditions of recurrence of Lagrange stable difference systems are also given. The theory of discrete dynamical systems is applied. (Received September 27, 2005)