

1116-39-2689

Christopher M Ormerod* (cormerod@caltech.edu), 1200 E California Blvd, Mathematics,
MC 253-37, Caltech, Pasadena, CA 91125. *Discrete Garnier Sysetms.*

We present four classes of nonlinear systems which may be considered discrete analogues of Garnier systems. These systems arise as discrete isomonodromic deformations of systems of linear difference equations in which the associated matrices is presented in a factored form. The system of discrete isomonodromic deformations is completely determined by the commutation relation between factors. A distinguishing feature of this study is the presence of a symmetry condition on the associated linear probelms that only appears in Lax pairs for the least degenerate discrete Painleve equations. (Received September 22, 2015)