

Exact Solutions of the Two-Component Hirota-Maxwell-Bloch System of Equations

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ABSTRACT

In this paper, we consider the two-component Hirota-Maxwell-Bloch (THMB) system of equations. Lax pairs of THMB system of equations are presented. We construct Darboux transformation (DT) of this system of equations. Determinant representation of one-fold, two-fold and n-fold DT of this system of equations are given. We receive exact solutions of the THMB system of equations by DT from trivial "seed" solutions.