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**Jibin Li\*** (jibinli@gmail.com), Zhejiang Normal University, 688 Yingbin Avenue, Jinhua, Zhejiang 321004, Peoples Rep of China. *On the Travelling Wave Solutions for Some High-Order Nonlinear Wave Equations: Dynamical System Approach.*

For the Lax KdV5 equation and the KdV-Sawada-Kotera-Ramani equation, etc, their corresponding four-dimensional travelling wave systems are studied by using Congrove's results and dynamical system method. Exact explicit gap soliton, embedded soliton, periodic and quasi-periodic wave solutions are obtained. The existence of homoclinic manifolds to three kinds of equilibria including a hyperbolic equilibrium, a center-saddle and an equilibrium with zero pair of eigenvalues is revealed. The bifurcation conditions for equilibria are given. (Received August 26, 2010)