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Hong-Chan Zheng, Wen-Xiu Ma and **Xiang Gu*** (xianggu@mail.usf.edu), Department of Mathematics & Statistics, University of South Florida, 4202 E Fowler Ave, CMC342, Tampa, FL 33620-5700. *Hirota Bilinear Equations with Linear Subspaces of Hyperbolic and Trigonometric Function Solutions.*

We applied linear superposition principles to the linear subspaces of hyperbolic and trigonometric function solutions to construct solutions for some Hirota bilinear equations, with the purpose of searching for a specific subclass of N -soliton solutions formulated by linear combinations of hyperbolic and trigonometric functions. Furthermore, an algorithm using weights is discussed together with a few illustrative examples. (Received January 17, 2017)