1077-35-504   **Magaji Y Adamu*** (`magajiadamu78@yahoo.com`), Mathematical Science Programme, ATBU Bauchi, Nigeria, Bauchi, Nigeria, and **Dauda G Yakubu** and **Enoch Suleiman**, , Nigeria. *Hirota Bilinear Equations and their Connection with Linear Superposition Principle.* Preliminary report.

The existence of N-soliton solutions often implies integrability of the considered differential equations and interactions between solitons are elastic and nonlinear, but unfortunately, the linear superposition principle does not hold for soliton equations. But since bilinear equations are the nearest neighbours to linear equations, they are therefore expected to some other ways similar to the linear equations. As a result a linear superposition principle of exponential travelling waves of Hirota bilinear equations is going to be considered and analyzed, with the aim to construct some subclass of N-soliton solutions formed by linear combinations of exponential travelling waves. Examples are going to be considered for the Sawada-Kotera and a (2+1)-dimensional equations. (Received September 13, 2011)