Baofeng Feng* (baofeng.feng@utrgv.edu). A coupled complex short pulse equation and its various soliton solutions.

In this talk, we are concerned with a coupled complex short pulse (CCSP) equation which including focusing-focusing, defocusing-defocusing and mixed cases. By using a generalized Darboux transformation method, various solutions to the CCSP equation are studied with both zero and nonzero boundary conditions. To be specific, the general bright-bright soliton solution for zero boundary conditions, the dark-dark soliton solution, as well as breather and rogue wave solution, are constructed for nonzero boundary conditions. This is a joint work with Dr. Liming Ling at South China University of Technology, China. (Received January 14, 2019)