1116-35-2655 **Ken-ichi Maruno*** (`kmaruno@waseda.jp`), , Japan, and **Arata Nagahara**. *A numerical study of line-soliton interactions of the Davey-Stewartson II system.*

The study of line-soliton interactions of the (2+1)-dimensional integrable systems has attracted much attention. Especially, the line-soliton interactions for the KP II equation has been studied intensively by Kodama and his collaborators. However, line-soliton interactions of the Davey-Stewartson (DS) system is much less studied. We propose a novel numerical scheme to simulate line-soliton interactions of the DS II system. This new numerical method is a combination of the split-step Fourier method and the double window method which makes us possible to simulate PDEs with non-vanishing boundary conditions. We investigate line-soliton interactions of the DS II system by using our numerical scheme and exact line-soliton solutions. (Received September 22, 2015)