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**Jerry L Bona\*** ([bona@math,uic.edu](mailto:bona@math.uic.edu)), Dept. Math. Statistics & Computer Science, University of Illinois at Chicago, 851 S. Morgan Street MC 249, Chicago, IL 60607. *Comparisons between Uni-directional and Bi-directional Models for Surface Water Waves.*

Bi-directional models for surface water waves go back to the work of Saint-Venet and Boussinesq in the 19th century. There is a further, formal reduction of such models to simpler equations that encompass waves moving only in one direction. Investigated here are some rigorous results underlying the usual formalism for passing from one to the other. Work of Alazman, Albert, Chen, Scialom and Wu will be featured. (Received September 21, 2011)