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Samuel Rivera* (samuel.rivera@mavs.uta.edu), 411 S. Nedderman Drive, Pickard Hall, Rm 478, Arlington, TX 76019-0408. *Soliton solutions to the nonlinear Schrödinger equation.*

Solitary wave (soliton) solutions are considered for the nonlinear Schrödinger equation $iu_t + u_{xx} + 2|u|^2u = 0$. Their physical importance is studied, and a Mathematica program is presented producing such multiple soliton solutions and their animations. (Received September 13, 2008)