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Gideon Simpson* (simpson@math.drexel.edu), Department of Mathematics, Drexel University, Korman Center - Room 206, 33rd and Market Streets, Philadelphia, PA 19104, and **David M Ambrose**. *Well-Posedness Results for a Derivative Nonlinear Schrödinger Equation*.

In this talk, recent results on the existence and uniqueness of solutions to a generalized derivative nonlinear Schrödinger equation will be presented. This equation, with nonlinearity $i|u|^{2\sigma}u_x$, has recently been given attention for its solitary wave solutions and blow up dynamics. However, there are relevant values of σ , including $1 < \sigma < 2$, for which well-posedness results are needed. Open problems will be highlighted. (Received January 24, 2014)