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**Robert Jenkins, Jiaqi Liu and Peter Perry\*** (peter.perry@uky.edu), Department of Mathematics, University of Kentucky, Lexington, KY 40506-0027, and **Catherine Sulem**. *Soliton Resolution for the Derivative Nonlinear Schrödinger Equation (Part I)*.

This talk concerns joint work with Robert Jenkins, Jiaqi Liu and Catherine Sulem on the soliton resolution conjecture for the Derivative Nonlinear Schrodinger Equation (DNLS), a completely integrable dispersive nonlinear equation in one space and one time dimension. It is the first of two talks to be given in sequence by Peter Perry and Robert Jenkins. The relevant papers will appear in *Communications in PDE* and *Communications in Mathematical Physics*.

In the first talk, we'll discuss the complete integrability of the DNLS and the analysis of direct and inverse scattering maps in the presence of finitely many solitons. By posing the Riemann-Hilbert problem that defines the inverse scattering map, we will set the stage for a steepest descent analysis of large-time asymptotics to be described in greater detail in Robert Jenkins' talk.

In a related talk, Jiaqi Liu will describe more recent work on global well-posedness for DNLS with arbitrary spectral singularities. (Received August 17, 2018)