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**Christof – Sparber\*** (sparber@uic.edu). *Multiphase geometric optics for nonlinear  
Schoedinger equations.*

We consider the cubic nonlinear Schoedinger equation in a weakly nonlinear semiclassical scaling and analyze the interaction of highly oscillatory waves within this context. An extension to the Davey-Stewartson system will also be discussed. This is based joint works with R. Carles and E. Dumas. (Received January 19, 2011)