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Gustavo Cruz-Pacheco* (cruz@mym.iimas.unam.mx), IIMAS-UNAM, Cto. Escolar Cd. Universitaria, 01000 Mexico DF, Mexico, and **MaCarmen Jorge**, **Antonmaria A Minzoni** and **Noel F Smyth**. *Modulation theory for two dimensional nonlinear equations.*

In this talk we present the modulation theory for the evolution of a lump as initial condition for a variety of two dimensional nonlinear dispersive equations as the Zakharov-Kuznetsov and the Kadomtsev-Petviashvili equations. We find the region where the radiation shed by the lump is confined and and we compute the effect of the radiation on the velocity and momentum of the lump. (Received August 22, 2007)