

**Meeting:** 1001, Evanston, Illinois, SS 14A, Special Session on Nonlinear Waves

1001-35-368      **I M Sigal\*** (sigal.1@nd.edu). *Collapse dynamics in Yang-Mills, nonlinear Schroedinger and Keller-Segel equations.* Preliminary report.

We describe recent as well as preliminary results on dynamics of collapse phenomena in three different areas: gauge field theory, nonlinear optics and theory of chemotactic collapse. We outline a unifying approach to the corresponding equations which are of a rather different nature (nonlinear wave, Schroedinger and parabolic equations). This is a joint work with P. Bizon, Yu. N. Ovchinnikov and J.J.L. Velazquez. (Received August 31, 2004)