

1059-86-110

**B T Nadiga\*** ([balu@lanl.gov](mailto:balu@lanl.gov)), LANL, MS-B296, Los Alamos, NM 87545. *Initial Condition Sensitivity and Modal Interactions in Realistic Ocean Models.*

Given its dynamical inertia, the slower components of global ocean circulation are expected to be predictable on the interannual to decadal timescale. Furthermore, for interannual to decadal simulations of ocean circulation at resolutions that allow for mesoscale eddies, it is anticipated that with data assimilation, the initial state can be estimated such that the slower components have the right phase and amplitude, and that such initializations will improve predictability. Towards better understanding the consequences and limitations of such an initialization, we report on preliminary numerical experiments. We note that a fundamental question underlying these issues is the nature of scale interactions in these high resolution simulations. (Received February 19, 2010)