1012-53-115   **Nitu R Kitchloo*** (`nkitchlo@math.ucsd.edu`), Department of Mathematics, UCSD, 9500 Gilman Drive, La Jolla, CA 92093. *Deformations of four dimensional Kahler manifolds.*

The deformation theory of complex manifolds has been extensively studied. For manifolds in dimension four, there is a more geometric approach to this theory which I will describe. One advantage of this approach is that it extends easily to questions of deforming complex structures under various constraints. In particular, we will explore the deformation theory of a fixed underlying symplectic manifold. This work is part of a joint project with M.Abreu and G.Granja. (Received September 14, 2005)