

Meeting: 1007, Santa Barbara, California, SS 9A, Special Session on Ricci Flow/Riemannian Geometry

1007-35-84 **Zhuang-dan Daniel Guan*** (zguan@math.ucr.edu), Department of Mathematics, University of California, at Riverside, Riverside, CA 92521. *On modified Ricci flow and modified Calabi flow.* Preliminary report.

In this talk I will explain recent approach of finding Kähler-Einstein type metric on compact Kähler manifolds by fourth order curvature flows. First, I will explain the quasi-second-order fourth order modified Ricci flow for extremal-soliton metrics and will try to prove the convergence of the flow on compact almost homogeneous manifolds with two ends. I will explain the weakness of this flow. This was done in 1993 (see a related paper appeared in International Journal of Mathematics 1995). Then, I will treat the fourth order modified Calabi flow and prove the C^∞ convergence on this manifolds. It shows that the Calabi-Robinson-Trautment flow is more natural. (Received February 03, 2005)