1078-35-95 **Hao Fang\***, 14 McLean hall, Iowa City, IA 52242, and **Mijia Lai** (lai@math.rochester.edu). Inverse  $\sigma_k$  flow on Kahler manifolds with symmetry.

In this talk, we will discuss the behavior of the inverse  $\sigma_k$  flow, which includes the J-flow as a special case, on a Kahler manifold with symmetry. Of particular interest is the case in which the flow blows up at the infinite time. Geometrically, it is equivalent to a partial blow-down of the manifold; while analytically, it is closely related to the obstacle problem in the elliptic PDE theory. (Received November 25, 2011)