1035-65-1363 **Wenyuan Liao*** (wliao@math.ucalgary.ca), Department of Mathematics and Statistics, University of Calgary, 2500 University Drive, NW, Calgary, Alberta T2N 1N4, Canada.
Adjoint-Based algorithm for optimal control of flow with discontinuities. Preliminary report.

In this presented paper I studied the optimal control of flow with discontinuities. The control parameters are intial conditions. The forward model is solved by both discrete Galerkin method and finite volume method while the gradient is generated by solving the adjoint model with finite volume method. Due to the existence of discontinuity of the flow, both smooth and Non-smooth optimization method had been tested. (Received September 19, 2007)