

Meeting: 1003, Atlanta, Georgia, SS 17A, AMS-SIAM Special Session on Nonsmooth Analysis in Variational and Imaging Problems, I

1003-45-1154 **Jin Cheng*** (jcheng@fudan.edu.cn), Department of Mathematics, Fudan University, 200433 Shanghai, Shanghai, Peoples Rep of China. *Identifying the discontinuous points of the solutions for ill-posed problems.* Preliminary report.

In this talk, we will present our results about identifying the discontinuous points of the solutions for the ill-posed problems by Tikhonov regularization. We prove that, if we use the strong norm as regularization term, the regularized solutions will blow up at the discontinuous points of the exact solution as the error and regularization parameter tend to zero. (Received October 04, 2004)