应用数学讲座

Научный Семинар по Прикладной Математике

Research Seminar on Applied Mathematics

应用数学报告（65）

报告人 / Докладчик / Speaker: 陈德汗 讲师（华中师范大学）

题目 / Название / Title: Variational source conditions with applications to inverse problems in PDEs

时间 / Время / Time：24 Jul. 2022, 17:25-17:50

地点 / Место / Venue: 图书馆1楼报告厅

摘要 / Аннотация / Abstract:

The concept of variational source condition was introduced nearly 15 years ago, and has led to many important progress on the theory of regularization. This talk is devoted to some previous and recent developments of the theory of variational source conditions, with emphasis on convergence rate analysis for inverse problems in PDEs. We will briefly outline the connections of variational source conditions with convergence rates, optimality and reverse results of regularization theory. Then, applications to Tikhonov regularization of some concrete inverse source and coefficients problems in Hilbert settings are present. In the end, we will propose and analyze variational source conditions for the Tikhonov regularization methods with L^p-penalties applied to an ill-posed inverse elliptic problems.