数学与系统科学研究院

计算数学所学术报告

报告人：**Associate Prof. Ye Zhang**

（ ***Shenzhen MSU-BIT University*** ）

报告题目：

Two new non-negativity preserving iterative regularization methods for solving inverse problems

邀请人：　张文生 研究员

报告时间：**2019** 年 **10** 月 **24** 日（周四）

下午 **15:00-16:00**

报告地点：　数学院南楼二层

202 教室

Abstract:

In this talk, in order to obtain a stable non-negative approximate solution, we develop two novel non-negativity preserving iterative regularization methods. In contrast to the projected Landweber iteration, which has only weak convergence w.r.t. noise for the regularized solution, the newly introduced regularization methods exhibit the strong convergence. The convergence result for the imperfect forward model, as well as the convergence rates, are discussed. Two new discrepancy principles are developed for a posteriori stopping of our iterative regularization algorithms. As an application of our new approaches, we consider a biosensor problem, which is modelled as a two dimensional Fredholm integral equation of the first kind.

欢迎大家参加！