数学与系统科学研究院

计算数学所学术报告

报告人： 徐洪坤

（ *杭州电子科技大学* ）

报告题目：

Projected Subgradient Methods in Infinite Dimensional Hilbert Spaces

邀请人： 优化与应用研究中心

报告时间： 2021 年 7 月 16 日（周五）

下午 **14:00-15:00**

报告地点： 数学院南楼

202 教室

Abstract：

Subgradient methods, introduced by Shor and developed by Albert, Iusem, Nesterov, Polyak, Solodov, and many others, are used to solve nondifferentiable optimization problems. The major differences from the gradient descent methods (or projection-gradient methods) for differentiable optimization problems lie in the selection manners of the step-sizes. For instance, constant step-sizes for differentiable objective functions no longer work for nondifferentiable objective functions; for the latter case, diminishing step-sizes must however be adopted. In this talk, we will first review some existing projected subgradient methods and the main purpose is to discuss weak and strong convergence of projected subgradient methods in an infinite-dimensional Hilbert space. Some regularization technique for strong convergence of projected subgradient methods will particularly be presented. Extension to the proximal subgradient method for minimizing the sum of two nondifferentiable convex functions will also be discussed.

欢迎大家参加！