数学与系统科学研究院

计算数学所学术报告

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报告题目：

From differential equation solvers to first order convex optimization methods

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上午 **10:00-11:00**

报告地点：　科技综合楼三层

301 报告厅

Abstract:

Convergence analysis of accelerated first-order methods for convex optimization problems are presented from the point of view of ordinary differential equation (ODE) solvers. Two resolution ODEs are derived for accelerated gradient methods. Numerical discretizations for these resolution ODEs are considered and its convergence analyses are established via tailored Lyapunov functions. The ODE solvers approach can not only cover existing methods, such as Nesterov's accelerated gradient method and FISTA, but also produce a large class of new algorithms that possesses optimal convergence rates.

This is a joint work with Hao Luo from Sichuan University

欢迎大家参加！