

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:

**Local and Global Minimizers of the  
Regularised Subproblem in  
Optimization**

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报告地点: 科技综合楼三层 311

计算数学所报告厅

## **Abstract:**

**We study in this paper the  $p$ -regularised subproblem (RS) in optimization where  $p > 2$ . We first establish necessary and sufficient optimality conditions for the global and local non-global minimizers of (RS), respectively. Then, we show the global minimizer of (RS) is always unique without any assumption given in reference. Furthermore, we can prove that (RS) with  $p \in [2 + \frac{2}{2k+1}, 2 + \frac{1}{k}]$  has at most  $k+1$  local-nonglobal minimizers, for  $k = 0, 1, \dots$ . It is finally conjectured that there exists at most one local non-global minimizer of (RS) for any  $p > 2$ .**

**欢迎大家参加!**