

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Jeffrey Larson**

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报告题目:

**Derivative-Free Optimization Using
Weighted Regression Models in a
Trust-Region Framework**

邀请人: 袁亚湘研究员

报告时间: **2010年9月28日(周二)**

下午 15:30~17:30

报告地点: **科技综合楼三层 311**

计算数学所报告厅

Abstract:

In this talk, we present a new technique for finding local minima of computationally expensive functions with numerical noise.

Such functions arise in many areas of applied mathematics, including joint work with biologists at the US National Renewable Energy Lab. We present an overview of previous techniques used to solve such problems, highlighting the most successful techniques which use surrogate models in a trust-region framework.

Though such models are typically of the interpolation or least-squares variety, we propose a weighted-regression model which we believe will provide quicker convergence. Various techniques for calculating weights are outlined, some of which have encouraging performance on benchmark problems.

欢迎大家参加!