数学与系统科学研究院

计算数学所学术报告

报告人： **Prof. Luis Roman Lucambio Perez**

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报告题目：

Non-linear conjugate gradients algorithm in Vector Optimization

邀请人： 戴彧虹 研究员

报告时间：**2014** 年 **12** 月 **11** 日（周四）

上午 **10:30-11:30**

报告地点： 数学院南楼七层 **702** 会议室

Abstract:

In this talk, a new algorithm for solving vector optimization problems without restrictions is proposed. This algorithm can be seen as extension, to vector optimization, of the well known non-linear conjugate gradients method. We will formulate this algorithm with standard Wolfe condition in the line search. We will show that the algorithm is of descent-direction-type, that, assuming that at each iteration, the line search with standard Wolfe condition is successful, that the Jacobian is Lipschitzian and that a condition of bellow boundedness is valid, then a property, analogous to the Zoutendijk condition, is true, and therefore, the algorithm is globally convergent. This work is the starting-point of a project that has the goal of formulate effcient algorithms for vector optimization, in the sense of relatively cheap fnding of one optimal Pareto point. As it is well known, the conjugate gradients methods are usefull, when this fact is proved computationally. This second part of the project remains as work for the future.

欢迎大家参加！