

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: Semismooth Newton-
Type Methods and Applications in
Power Systems**

邀请人: 白中治研究员

报告时间: 2008年6月11日(周三)

下午 4:00—5:00

报告地点: 科技综合楼三层 311

计算数学所报告厅

Abstract:

The semismooth Newton method has been

received much attentions in numerical methods since it enjoys the same convergence as the classical Newton method. Our research contributes to the system of nonsmooth constrained equations. Various algorithms for constrained equations are presented, which extend the results of unconstrained semismooth Newton methods and the classical smooth Newton methods. Based on the research in numerical methods, some important applications in power systems, such as available transfer capability–ATC, optimal power flow–OPF, steady–state stability and transient stability analysis, dynamic bidding analysis and profit–risk analysis in power markets, are discussed. The applications in power systems are respect to the security and stability of power systems from the theories, mathematical models and calculating aspects.

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