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： 融冰化雪电磁场

邀请人： 崔俊芝院士

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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： **We have proposed 3D GL and AGILD Electromagnetic (EM) - Flow- Heat - Stress coupled modeling (GLEMFHS) and applications in the in PIERS 2007 in Beijing and published the method in PIERS Online. In this talk, we present an EM - Flow- Cold- Stress (GLEMFCS) coupled modeling and inversion for icing disaster on high voltage lines network, in short, we call it GLEMFCS ICINGS modeling**

and inversion. The GLEMFCS ICINGS modeling imaging can be used to display the EM, flow, temperature, and icing crystal stress field dynamically on the high voltage lines and recover, adjust, monitor, and control the EM, flow, old temperature, icing stress, distance of iron tower supports, and electric network parameters, such that the icing disaster minim. During Chinese Lunar New year, from January 8 to February 8, 2008, there had been serious icing disaster in South of China and North of Nanling mountain that never been happen in recent 100 years. The icing disasters were extremely serious in Hunan, Guizhou, Jiangxi, Hubei, Anhui, Zhejiang, and Jiangsu etc. provinces. The icing on the high voltage wire lines to form very big and length ice cylinders with diameter 350 mm to 400 mm. The big and length ice cylinders flying on the high voltage wire lines produce big tense forces between the iron towers such that the iron towers collapsed and destroyed power network and caused power down in very large areas of the above provinces. The icing disaster may be repeatedly happen in China or other places in the world. Therefore, the GLEMFCS Icing Coupled modeling and inversion for icing disaster on high voltage lines proposed in this paper is necessary and have important and wide applications to investigate and reduce the strange and serious icing disaster.

欢迎大家参加！