

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:

**A Few Topics on Mesh Processing  
and Applications**

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上午 10:00-11:00

报告地点: 科技综合楼三层

311 报告厅

## **Abstract:**

Mesh has been widely used to represent object that can be handled and processed by computer. The applications of mesh have already passed over the scientific field and have brought invaluable industrial profits. The topics related to mesh are tremendous and we only pick a few to discuss. We talk about multi-domain meshing, including gap-exist and gap-free cases. Next we introduce intermediate contouring, which is a hybrid of marching cube method and dual contouring. Hole filling has many applications and is still challenging. We can clean horizon pairs that are used to represent subsurface structure. Mesh registration has been applied in automatic landmarking for total knee replacement system. Mesh Boolean operations are widely used in metrology with nano-scale precision in semi-conductor industry. All these topics are independent and are along my personal experience.

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