计算数学所定期学术报告

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报告题目：

Multiscale Numerical Simulation Method and Its Application to Dynamics Behavior of Metal under Shock Loading

邀请人： 曹礼群研究员

报告时间：2017 年 12 月 7 日（周四）

下午 **16:00-17:00**

报告地点： 数学院思源楼

一层报告厅

报告摘要：

Dynamics behaviors of material under shock loading

condition, such as spall, micro-spall, adiabatic shear banding(ASB) et al., all are important issues in the field of military and aero engineering, and have attracted numerous researcher's interests. It is well known that material dynamics behaviors are typical multiscale phenomena, which are usually induced by microstructure in matrix material and evolved to macro failure of material. So, understanding the micro and mesoscale mechanism of dynamics behaviors are significant necessary for building macro failure model. However, it is almost impossible to capture all small-scale features by direct macro numerical simulations because an accurate solution usually requires very fine meshes and this leads to tremendous amount of computer memory and CPU time. Therefore, it is reasonable and necessary to apply and develop multiscale numerical simulation method to deal with this kind of multiscale problems. In this present, we will introduce our research work in the multiscale numerical simulation method and some recently studying results on several typical dynamics behaviors of metal under shock loading.