**讲 座**

讲座题目：多尺度计算方法的工程应用

报告人：Sheng Yong

单位：英国胡弗汉顿大学

时间：2019年3月12日16:00-17:00

地点：逸夫楼C区205室

组织单位：国际合作交流处

个人简历:

*Speaker's profile*

*Dr. Yong Sheng is a professor of Structural Engineering at University of Wolverhampton.  He has over 25 years of research experiences in developing advanced engineering computational methods and applying them to solve a broad range of engineering problems. He has led a number of major UK and EU research projects and established a research profile that is highly appreciated by the international research community. Prof. Sheng led the Centre for Computational Engineering and Institute of Resilient Infrastructures while worked at University of Leeds, and has managed many international collaborative projects. Prof. Sheng is leading the research in Civil Engineering and international development in the School of Architecture and Built Environment at University of Wolverhampton.*

*Summary of Presentation*

*A broad range of scientific and engineering problems involve multiple scales. Traditional monoscale approaches have proven to be inadequate, even with the largest supercomputers, because of the range of scales and the prohibitively large number of variables involved. Thus, there is a growing need to develop systematic modeling and simulation approaches for multiscale problems. In this talk, multiscale modeling methods from micro to macro scale are introduced with focus on their applications in different engineering areas, ranging from civil structural engineering, composite materials, mechanical engineering and energy engineering. Also In this talk, multi physics situations where coupled phenomena involving a combination of thermal, fluid, and solid mechanics occur, will be discussed and coupled modelling strategy will be presented with engineering examples.*