

数学与系统科学研究院

计算数学所学术报告

报告人: Univ.-Prof. Dr.-Ing. habil. Dr. h.c.

**Chuanzeng Zhang**

( *Chair of Structural Mechanics, School of Science and Technology,*

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报告题目:

**Advanced Analysis and Applications  
of Multifunctional Materials and  
Structures**

邀请人: 崔俊芝 院士

报告时间: 2015 年 9 月 6 日 (周日)

下午 16:00-17: 00

报告地点: 数学院南楼七层

702 会议室

## **Abstract:**

**In recent years, high-performance multifunctional materials and structures have received special attention due to the increasingly higher requirements in engineering applications. From the mechanical points of view, they should possess adequate load carrying capacity, serviceability, robustness and durability. From the physical points of view, they should show exhibit good thermal insulation, noise protection, fire resistance and moisture proofing.**

**In this presentation, some recent research activities and results obtained at the Chair of Structural Mechanics, School of Science and Technology, University of Siegen, Germany, will be reported. In particular, several special properties and innovative applications of functionally graded materials (FGMs) and structures, phononic crystals (PCs) and structures, and smart materials and structures (piezoelectric/piezomagnetic and magneto-electro-elastic) will be analyzed and discussed.**

## **CV of Chuanzeng Zhang**

**Chuanzeng Zhang is Professor and Chair of Structural Mechanics, and Deputy Head of the Department of Civil Engineering, School of Science and Technology, University of Siegen, Germany. He received PhD (Dr.-Ing.) in 1986 at Technical University Darmstadt, Germany. Before his appointment at University of Siegen in 2004, he was a Professor of the Department of Civil Engineering, University of Applied Sciences Zittau/Görlitz, Germany. His research interests include computational mechanics, structural mechanics, fracture and damage mechanics, mechanics of advanced materials and elasto-dynamics. He has over 650 publications in scientific journals and conference proceedings. He is the Co-Chief Editor of the Book Series “Advances in Materials and Mechanics”, an editorial member of the Book Series “Computational and Experimental Methods in Structures” (Word Scientific & Imperial College Press), Managing Guest Editor of “Engineering Fracture Mechanics” (2009-2010), Guest Editor of “Advances in Mechanical Engineering” (2013-), guest editorial member of “Chinese Quarterly of Mechanics” (2014-), and an editorial member of the scientific journals “International Journal of Computational Methods”, “Structural Durability and Health Monitoring”, “Computer Modeling in Engineering & Sciences” (2004-2007), “Electronic Journal for Boundary Elements”, “Mathematical Methods and Physico-mechanical Fields”, and “Engineering Analysis with Boundary Elements”. He is the Vice-President of the “International Chinese Association for Computational Mechanics“, Adjunct Professor of Tongji-University and Harbin Engineering University, Guest Professor of Harbin Institute of Technology, Nanjing University of Aeronautics and Astronautics, and China Building Materials Academy, Fellow of Wessex Institute of Technology (UK) and so on. He is an honorary doctorate (Dr. h. c.) of the Slovak University of Technology in Bratislava, and a member of the European Academy of Sciences.**

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