



北京理工大学

数学与统计学院学术报告

Lagrange-Dirac Dynamical Systems and Applications

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时间: 2024.7.22(14:00--15:30PM), 7.24, 7.26, 7.29, 7.31(09:00--10:30AM)

地点: 文萃楼F303

摘要:

In this series of lectures, we study recent advances of non-equilibrium thermodynamics, Dirac Mechanics and its applications. We start with a brief introduction to the fundamentals of geometric mechanics, i.e., variational principles as well as symplectic and Poisson structures. Then, we study the notion of Dirac structures and its applications in physics. In particular, we illustrate the theory of Dirac dynamical systems with examples such as circuits, nonholonomic systems as well as nonequilibrium thermodynamic systems.

个人简介:



Dr. Hiroaki Yoshimura is Professor of Department of Applied Mechanics and Aerospace Engineering and Department of Mathematics and Applied Mathematics at Waseda University. He received his PhD in 1995 from Waseda University. He joined Waseda University as Assistant Professor in 1992, Associate professor in 1997 and he became Professor in 2003. He was appointed as a visiting faculty at Dynamical Systems and Control in Division of Applied Science and Engineering, sponsored by Professor Jerrold E. Marsden at California Institute of Technology during 2002 -2003. His studies have been focused on nonlinear science such as geometric mechanics, dynamical systems and numerical analysis.