**CAN实验室组会报告**

时间：2015年12月25日下午2:00

地点：物理楼414会议室

报告题目：**Passive Mechanical Control and Network Synthesis with Inerter**

报告人：**陈志强** 博士（Dr. Michael Z. Q. Chen, The University of Hong Kong）

报告摘要：

This talk will discuss some recent work on the synthesis of general passive mechanical impedances. The need for a new modeling element (the inerter) will be explained and its mechanical construction discussed. The recent deployment of the inerter in Formula One racing cars will be described.

The realization problem of n-port resistive networks is one of the most important topics in network synthesis. Investigations on realization problems of n-port resistive networks can provide a further guidance on realizations of more general n-port networks without transformers (levers). This topic experienced a rapid development from the 1950s to the 1970s. In recent years, as the interest of passive network synthesis has been revived by passive mechanical control, it is meaningful to investigate realizations of n-port resistive networks again. An overview of the synthesis of n-port resistive networks and some latest results will be presented.

报告人简介：

陈志强博士，新加坡南洋理工大学电力电子工程系学士学位，英国剑桥大学工程系博士学位，现为香港大学机械工程系助理教授。研究方向为无源网络综合，无源网络控制，集群行为建模，以及智能电网。