LHD 国际学术报告会&青年学术论坛(2011 年 5 月 30 日周一 9:00-11:00)

(一)

报告题目：

Hypersonic Researches at NCKU

演讲人：

温志湧 教授

(台湾成功大學 航空太空工程系)

时间：2011 年 5 月 30 日（周一）上午 9:00

地点：力学所 1 号楼 312 会议室

邀请人：张德良 研究员

会议主持人：姜宗林 研究员

报告摘要：

With the recent successful demonstration flights of X-43 in 2004 and X-51 in 2010, the scramjet research has revived and attracted great attention in the aerospace engineering worldwide. In this talk, the recent hypersonic researches at NCKU, Taiwan, will be introduced. A team of 6 professors are devoted to develop inlets and combustors of a scramjet engine. In the first phase of the program (2009-2011), a hypersonic shock tunnel has been designed, built and calibrated, which can generate flows with Mach number ranging from 2 to 6 and free-stream temperature up to 1400 K. All the numerical tools incorporating real gas effects and turbulence modeling of supersonic combustion flows, high speed instrumentation of pressure and heat transfer measurements, flow visualization systems of shadowgraph, Schlieren, and differential interferometry, and non-invasive optical diagnostic technique—OH-LIPF florescence spectral analysis method to measure the OH concentration and temperature in the flow field, have been developed. Preliminary results will be presented.

（二）

报告题目：

气动热测量技术改进及压电压力传感器防热

演讲人：**吴　松**

时间：2011 年 5 月 30 日（周一）上午 10:00
地点：力学所 1 号楼 312 会议室
会议主持人：姜宗林 研究员

报告摘要：1、气动热测量技术改进：随着高超声速飞行器的发展，对气动热测量技术提出了更高的需求。为满足新需求，对现有气动热测量技术进行了改进，包括新型传感器(柔性传感器、一体式热电偶)的研制以及测热系统频响的提高。2、压电压力传感器防热：高焓流动中同时存在高温、高压。压电压力传感器测压时，同时还会被气流加热，致使测量结果畸变与失真。通过分析热干扰的来源，推荐一种方便、有效的防热方法，并给出选择有关参数的准则和方法。

欢迎大家踊跃参加!