



RBS WILLIAMS F1  
CONFERENCE CENTRE

**UK Magnetics Society**

## **Thermal and Mechanical Aspects of High Performance Electrical Machines**

**February 16<sup>th</sup> 2011, The Williams F1 Conference Centre, Grove, Oxfordshire.**

High performance machines are increasingly being used in several areas, namely aerospace, automotive, compressors and spindle applications. The concept of high power density electrical machines is further strengthened by the improvement in the methodologies of manufacturing, high switching converter frequencies and the availability of high-specification materials.

By going to high-speeds or high torque and small size, machine overheating and mechanical constraints become a main issue to the machine designer. This seminar will bring together engineers and academics working in the area to discuss state-of-the-art developments in thermal and mechanical aspects of electrical machine design.

### **Speakers include:**

- Ed Haynes—Williams F1
- Dr Keith Pullen – City University
  
- Andy Atkins – Ricardo
- Dr Steve Pickering – Nottingham University
- Daniel Smith – Newcastle University
  
- Tony Synott – NSK Bearings
- Cummins
- Jon Drakely - Crompton Technology

### **Proposed Titles:**

- Introduction to Williams F1 and welcome to event
- “Mechanical Design and Testing of High Performance Electrical Machines”
- TBC
- “The use of CFD in the design of Electrical Machines”
  
- “Rotor containment in high speed permanent magnet machines”
- “Bearings for integral motors”
- TBC

**Included in the registration fee is tour of the private Williams F1 Grand Prix Collection. Refreshments served in the Trophy Room. Williams F1 Shop is open during lunchtime. Exhibition space available.**

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**Limited places available. Book early to avoid disappointment**

