

## **Presented Paper at FISITA 2008 World Automotive Congress**

We presented a paper at FISITA 2008 World Automotive Congress on September 15, 2008.

### **1. TITLE**

**Integrated Approach to Reducing Brake Judder by Using Homogeneous Brake Discs**

Paper No. F2008-03-007

### **2. AUTHOR**

Toshikazu OKAMURA

### **3. ABSTRACT**

Brake judder is one of the most serious problems in automotive-brake systems. It has not been eradicated despite all the efforts that many researchers and engineers have made to reduce it by studying its causes and mechanisms. Brake discs play a significant role in judder. We therefore pursued the development of homogeneous brake discs to reduce judder from various viewpoints in terms of both product and process engineering. We focused on three specific approaches:

- Precise and accurate machining,
- A design strategy for less thermal coning with an outer-hat disc configuration, and
- An integrated process for improving material homogeneity to reduce on-brake DTV growth.

By integrating these approaches from R&D through manufacturing as described above, we have provided homogeneous and robust brake discs to reduce judder.

### **4. CONTACT**

Toshikazu OKAMURA, Dr. Eng.

Development Department

E-mail: [t-okamura@kiriu.co.jp](mailto:t-okamura@kiriu.co.jp)

TEL: +81-284-62-9211

FAX: +81-284-64-1404