



INTERNATIONAL  
SUPERCOMPUTING CONFERENCE

Europe's Premier HPC Event

'08

June 17 – 20  
Dresden, Germany



## ISC AUTOMOTIVE SESSION

June 17, 2008  
12:00 – 06:00 pm

### MEETING CHALLENGES ON A GLOBAL SCALE

The automotive industry has changed dramatically over the last 20 years. Nowadays, car manufacturers need to cost-effectively offer more vehicles and derivatives within their product range, which makes the car development process and the underlying engineering tasks more complex. At the same time, vehicle manufacturers have to quickly react to legal changes driven by the political responses to global climate change.

To keep the development costs under control and to shorten development cycles, virtual methods within the vehicle development process are crucial. The “virtual vehicle” is the key to success and HPC is critical to this approach.

At this year's “HPC Requirements for the Automotive Industry” session at ISC '08, a series of presentations will demonstrate that groundbreaking advancements in the automotive industry come about through the collaboration of scientific expertise and the most innovative and highly scalable technology, High Performance Computing.

### THE ROADMAP TO AUTOMOTIVE HPC

The Automotive Session will begin by focusing on HPC trends in the automotive industry and on the investments car manufacturers must make in distributed HPC systems to stay internationally competitive. But this presents challenges in the form of high maintenance costs and complex software installations.

The session will then continue with a look at compute cluster installations in the automotive industry. To be prepared for the future, world-class car manufacturers set up new HPC infrastructures for their IT environments, which have to be cost-efficient, scalable and highly available to engineers at sites around the world. In most cases, the solution is a multi-purpose computational cluster based on commodity hardware.

The presentations in the third part will deal with the adaptation of applications on computational clusters. There is an increasing need for multi-disciplinary simulations in various research and engineering fields and that a single simulation system cannot meet the needs for flexibility and simulation quality.

ISC

[www.supercomp.de](http://www.supercomp.de)

Organizer of the International Supercomputing Conference  
Prometeus GmbH | Fliederstraße 2 | 74915 Waibstadt-Daisbach | Germany

**AUTOMOTIVE SESSION**



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## WHO SHOULD ATTEND?

The ISC'o8 Automotive Session is not just for automotive experts, but for anyone who appreciates high performance – whether in cars or computer architectures. The session brings together industry experts and top scientists with the aim of demonstrating that advancements in the automotive industry throughout the world heavily depend on HPC.

Consider attending this session if you are:

- A decision-maker interested in learning more about multi-purpose computational clusters
- An IT manager responsible for a successful usage of cluster resources
- A developer wishing to get a better understanding of applications running on parallel systems
- A system engineer responsible for operational aspects of computational clusters



After the Automotive Session, attendees will have the opportunity to meet and chat with colleagues, customers, partners, researchers and manufacturers in a casual atmosphere at the: **ISC'o8 Exhibition Opening Party.**

**Plan now to join us!!**

## EXPERTISE AND EXPERIENCE

The ISC'o8 Automotive Session will feature excellent speakers from the automotive industry (Audi, BMW, General Motors), supercomputer manufacturers and independent software vendors (the Virtual Vehicle), each with many years of IT experience in the HPC field.

Prof. Dr. Michael M. Resch, Director of the High Performance Computing Center/Stuttgart (HLRS), will chair the Automotive Session. He has served on the boards of various international institutions and has been active in a variety of conferences and community activities in supercomputing over the last years. Prof. Resch is also an important contributor to the success of the ISC.

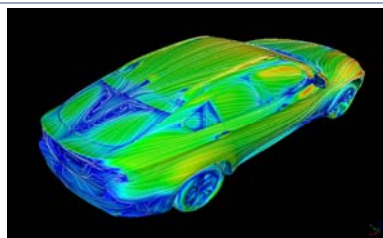
### The **AUTOMOTIVE PASS** at **300 EURO\***

includes:

- Participation in the **Automotive Session**  
June 17, 2008, 12:00 pm – 6:00 pm
- **Coffee Break**  
June 17, 2008, 03:00 pm-3:30 pm
- Admission to the **Exhibition**  
June 17, 2008, 06:00 pm – 10:00 pm
- **Exhibition Opening Party**  
June 17, 2008, 06:00 pm – 10:00 pm

\* A 19% government-mandated Value-Added Tax (VAT) is charged in addition to all stated fees. Fees cover full catering and social events. This advance registration fee is valid until May 19, 2008.

For detailed information on the Automotive Session, please visit our website at: [www.isco8.org/automotive](http://www.isco8.org/automotive)



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