

## REGISTRATION

### SEMINAR: ADVANCED RUBBER COMPOSITES

May 7, 2009

AND

### 3<sup>rd</sup> Dresden Workshop

### TIRES: ROAD AND VEHICLE INTERACTION

May 8, 2009

for ADVANCED RUBBER COMPOSITES (May 07, 2009)

EUR 100 (Academic)  EUR 200 (Industry)

for 3<sup>rd</sup> Dresden Workshop (May 08, 2009)

EUR 100 (Academic)  EUR 200 (Industry)

for both presentations (May 07 - 08, 2009)

EUR 175 (Academic)  EUR 350 (Industry)

paid in cash on site (credit card accepted)

paid upon receipt of an invoice

..... Name Surname Title

..... Affiliation

..... Address

..... Phone Fax

..... e-mail

..... Date Signature

May 07, 2008

DR. RAQUEL VERDEJO (INSTITUTO DE CIENCIA Y TECNOLOGIA DE POLIMEROS, CSIC, MADRID, SPAIN)

DR. FRANCOIS TOURNILHAC (ESPCI, PARIS, FRANCE)

PROF. DR. ANIL K. BHOWMICK (INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR, INDIA)

DR. DIETER BELLGARDT (DOW OLEFINVERBUND GMBH, SCHKOPAU / MERSEBURG, GERMANY)

PROF. DR. HANS-JOACHIM RADUSCH (MARTIN-LUTHER-UNIVERSITÄT HALLE-WITTENBERG, HALLE/S., GERMANY)

DR. AMIT DAS (LEIBNIZ INSTITUTE OF POLYMER RESEARCH DRESDEN, GERMANY)

PD. DR. MANFRED KLÜPPEL (DEUTSCHES INSTITUT FÜR KAUSCHUKTECHNOLOGIE (DIK) HANNOVER, GERMANY)

May 08, 2007

PROF. DR. MICHAEL KALISKE (TU DRESDEN, GERMANY) Full Professor for Structural Mechanics at the Technische Universität Dresden

DIPL.-ING. PETER BECKER (APOLLO TYRES LTD, INDIA) Chief Research & Technology

DR. YUKIO NAKAJIMA (BRIDGESTONE, JAPAN) Director of Tire Research Division in Bridgestone Corporation

IR. RONALD F.P. VAN ZELST (GOODYEAR, LUXEMBOURG) Principal Engineer at the Goodyear Technical Centre Luxembourg

PROF. DR. WERNER MISCHKE (TU DRESDEN, GERMANY) Full Professor for Automotive Engineering at the Technische Universität Dresden

PROF. DR. FRANK GAUTERIN (U KARLSRUHE, GERMANY) Full Professor at the Institute of Vehicle Technology at the Universität Karlsruhe

DIPL.-MATH. NORBERT KENDZIORRA (CONTINENTAL AG, HANNOVER, GERMANY) Senior Research Engineer and Chemist, R&D Continental AG



Technische Universität  
Dresden  
Institut für Statik und  
Dynamik der Tragwerke



DFG Research Unit 597  
"Fracture Mechanics  
and Statistical  
Mechanics of  
Reinforced Elastomeric  
Blends"



Leibniz-Institut für  
Polymerforschung  
Dresden e.V.

## SEMINAR: ADVANCED RUBBER COMPOSITES

AND

3<sup>rd</sup> Dresden Workshop

TIRES:

ROAD AND VEHICLE  
INTERACTION



Dresden, May 7 - 8, 2009



Rubber is one of the most important engineering materials that is often compounded with many different ingredients, which gives rise to unique combinations of desirable properties ultimately increasing the range of the applications of rubber materials. The workshop about advanced rubber composites addresses these topics from various perspectives by in-depth scientific presentations of leading experts in their fields from polymer industry as well as from academic research. Latest findings will be discussed in this one-day event which aims to bring together experts with extensive experience in research, development, management and education in order to discuss innovative approaches and perspectives.

The seminar will be held in English according to the composition of the group of participants

### May 7, 2009

- 9:00 **Opening and Welcome Address**  
**G. HEINRICH** (Leibniz Institute of Polymer Research Dresden, Germany)
- 9:15 - 10:00 **R. VERDEJO** (Instituto de Ciencia y Tecnología de Polímeros, CSIC, Madrid, Spain)  
 Insights into Microstructure and Property Enhancements in Elastomeric Nanocomposites
- 10:00 - 10:45 **F. TOURNILHAC** (ESPCI, Paris, France)  
 Self-Healing Supramolecular Rubbers
- Coffee Break**
- 11:00 - 11:45 **A. K. BHOWMICK** (IIT, Kharagpur, India)  
 Rubber Nanocomposites – Some Recent Examples
- 11:45 - 12:30 **D. BELLGARDT** (Dow Olefinverbund GmbH, Schkopau, Germany)  
 Functionalized Styrene-Butadiene-Rubbers for Improved Polymer-Filler Interaction
- Lunch**
- 13:30 - 14:15 **H.-J. RADUSCH** (Martin-Luther-Univ. Halle-Wittenberg, Halle/S., Germany)  
 Advanced Method to Control Nano-Filler Dispersion in Rubber Compounds by Online Measured Electrical Conductance during Mixing
- 14:15 - 15:00 **A. DAS** (Leibniz Institute of Polymer Research Dresden, Germany)  
 Rubber Nanocomposites: Vision and Reality
- Coffee Break**
- 15:15 – 16:00 **M. KLÜPPEL** (DIK Hannover, Germany)  
 Advances in Understanding Reinforcement in Rubber Composites
- 16:00 - 16:30 **Panel Discussion**
- 19:00 **Evening Event**

The tire, itself a complex and innovative structure, has interaction in two ways. Firstly, the tire's structural behaviour is strongly influenced by the features of the contact surface and the pavement. Secondly, the vehicle's dynamical characteristics influence the tire and vice versa. Moreover, the three contributing partners are coupled to a complex pavement – tire – vehicle system.

The latest findings will be discussed in this one-day event which aims to bring together experts with extensive experience in research, development, management and education in order to discuss innovative approaches and perspectives. The workshop addresses members in research, development and manufacturing of tire and automotive industries as well as manufacturers of corresponding tire raw materials.

### May 8, 2009

- 9:00 **Opening and Welcome Address**  
**G. HEINRICH** (Leibniz Institute of Polymer Research Dresden, Germany)  
 Research Network Dresden: Tire Technology of the Future
- 9:15 - 10:00 **M. KALISKE, F. WELLNER** (TU Dresden, Germany),  
 Combined Simulation Approaches in Pavement and Tire Engineering
- 10:00 - 10:45 **N. KENDZIORRA, B. WIES** (Continental AG, Hannover)  
 New Insights in Tire/Road Force Transfer
- Coffee Break**
- 11:00 - 11:45 **P. BECKER** (Apollo Tyres Ltd., Germany)  
 Tyre Development, Requirements and Challenges Today and in Future.
- 11:45 - 12:30 **Y. NAKAJIMA** (Bridgestone Corporation, Japan)  
 Vehicle/Tire/Road Interaction: Simulation, Experiment and Sensing
- Lunch**
- 13:30 - 14:15 **R. VAN ZELST** (Goodyear Technical Center, Luxembourg)  
 Modelling for Optimized Winter Tire Performance
- 14:15 - 15:00 **S. EINSLE, W. MISCHKE** (TU Dresden, Germany)  
 Tyre modelling - The procedure from measurement to the utilization in MBS-models
- Coffee Break**
- 15:15 – 16:00 **F. GAUTERIN** (U Karlsruhe, Germany)  
 Influence of Tangential Force, Wheel Load and Inflation Pressure on Tire-Road-Noise
- 16:00 - 16:30 **Panel Discussion**

## Accommodation

The following recommended hotel is offering special prices for IPF guests. (within walking distance from IPF)

Achat Hotel  
 Budapester Strasse 34, 01069 Dresden  
 Tel: +49 (0)351 47380 0

Please book your accommodation early quoting the keyword 'IPF'.

## Organisation

The workshop is organised by  
**Prof. Dr. G. Heinrich** (Leibniz-Institut für Polymerforschung Dresden e.V.) and  
**Prof. Dr. M. Kaliske** (Institut für Statik und Dynamik der Tragwerke (ISD), Technische Universität Dresden).

## Venue

Leibniz-Institut für Polymerforschung Dresden e.V.  
 Conference Hall, 2nd floor  
 Hohe Str. 6, 01069 Dresden

## Contact

**Katja Tampe** ([tampe@ipfdd.de](mailto:tampe@ipfdd.de))

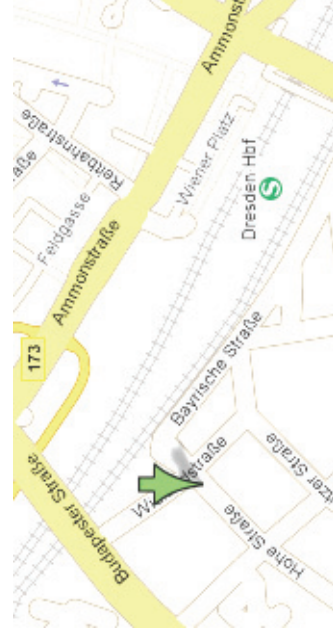
Phone: +49 351 4658-409  
 http://www.ipfdd.de/for597

Fax: +49 351 4658-362

## How to get to the institute?

... by train

The institute is quite near the main railway station Dresden-Hauptbahnhof. Leave the railway station to the right and follow 'Bayrische Straße' and 'Hohe Straße'.



...by airplane

Suburban train to Dresden-Hauptbahnhof (duration about 25 minutes, departures every 30 minutes). Leave the railway station to the right and follow 'Bayrische Straße' and 'Hohe Straße'.