



# Textile Roofs 2005

The Tenth International Workshop on the Design and  
Practical Realisation of Architectural Membrane Structures

# Programme

Registration office will open on May 26<sup>th</sup> at 8:00 a.m. in the Ernst-Reuter Haus  
All lectures are held in the Ernst Reuter Haus near the Technical University Berlin  
The afternoon sessions are held at the Geodätenstand in the Technical University Berlin

## Thursday, 26<sup>th</sup> May

**09:00** Welcome; *Prof. Dr.-Ing. Lothar Gründig*  
Technical University Berlin, Germany

**09:15** About Lightness in Form and Structure  
*Dipl.-Ing. Jürgen W. Hennicke*  
Institut für Leichtbau, Entwerfen und Konstruktion  
Universität Stuttgart, Stuttgart, Germany

Design  
*Prof. Josep I. Llorens*  
University of Catalonia  
Barcelona, Spain

Membrane Structures: From Design To Installation  
*Dipl.-Ing. Reiner Essrich*  
IF Ingenieurgesellschaft Flächentragwerke  
Reichenau, Germany

Computational Modelling Concepts  
*Dr.-Ing. Dieter Ströbel*  
technet GmbH, Stuttgart, Germany

**12:30-14:00** Lunch break

**14:00-17:00** Afternoon Session 1 (Geodätenstand, 6<sup>th</sup> floor)

### Three parallel strands:

- Hands-on physical modelling workshop
- Hands-on computational modelling workshop
- Specialist presentations

– Formfinder to Sample  
*Dipl.-Ing. Robert Wehdorn-Roithmayr*,  
Technische Universität Wien, Austria

– Seafood Quality Control by Lightweight Structure  
Approach of Muscle Tissue

*Dr.-Ing. Michael Kröger*  
Hamburg, Germany

– Algorithmic Approaches  
*Prof. Joachim Bahndorf*  
Fachhochschule Bielefeld, Minden, Germany

**19:30** Special Guest Lecture (Ernst Reuter Haus)  
Changing the Design Paradigm  
- About Membranes and other Lightweights -  
*Prof. Dr.-Ing. habil. B.H. Kröplin*  
University of Stuttgart, Germany

## Friday, 27<sup>th</sup> May

**09:00** Multi-layered Tensile Forms  
*Prof. Marijke Mollaert*  
Vrije Universiteit Brussels  
Brussels, Belgium

Material Properties of Fabrics and Films: Theory and  
Measurement  
*Dr.-Ing. habil. Rainer Blum*  
Laboratorium Blum  
Stuttgart, Germany

Textile Materials for Membrane Structures  
*Ms. Françoise Fournier*  
Ferrari S.A.  
La Tour-du-Pin, France / Lleida, Spain

New Membrane Materials with Thermoregulating  
Properties for Fabric Structure Applications  
*Dr. Barbara Pause*  
Textile Testing & Innovation  
Longmont, USA

**12:30-14:00** Lunch Break

**14:00-16:00** Afternoon Session 2 (Geodätenstand, 6<sup>th</sup> floor)

### Three parallel strands:

- Hands-on physical modelling workshop
- Hands-on computational modelling workshop
- Specialist presentations:

– RSTAB: Calculation of Planar and Spatial  
Structures

*Dipl.-Ing. Walter Rustler*  
Ing.-Software Dlubal GmbH, Germany

– Ice Architecture  
*Dipl.-Ing. Arno Pronk*,  
TU Eindhoven, The Netherlands

**16:30** City Sightseeing Cruise by Tourboat  
**19:45** Workshop Banquet

## Saturday, 28<sup>th</sup> May

**09:00** Recent Development of Membrane Structures  
Engineering in China  
*Dr. Assoc. Prof. Chen Wujun*  
Shanghai Jiaotong University,  
P.R. China

Pneumatic Constructions  
*Matti Orpana*  
Tensotech  
Kokkola, Finland

Kinematics in Tensile Structures  
*Prof. Dr.-Ing. Rosemarie Wagner*  
Fachhochschule München  
Munich, Germany

New Developments in Supporting Structures for  
Membranes  
*Dipl.-Ing. Michael Schultes*  
University of Vienna  
Vienna, Austria

**12:30-14:00** Lunch Break

**14:00-16:00** Afternoon Session 3 (Geodätenstand, 6<sup>th</sup> floor)

### Two parallel strands:

- Hands-on physical modelling workshop
- Hands-on computational modelling workshop

– Students workshop results: Presentation and  
Discussion:

*Prof. Dr.-Ing. Rosemarie Wagner*  
Fachhochschule München, Munich, Germany  
*Dipl.-Ing. Michael Schultes*  
University of Vienna, Austria

– Discussion: Hands-on physical model projects  
*Dipl.-Ing. Jürgen W. Hennicke*  
Institut für Leichtbau, Entwerfen und Konstruktion  
Universität Stuttgart, Stuttgart, Germany  
*Prof. Josep I. Llorens*, University of Catalonia  
Barcelona, Spain

**16:00** Close