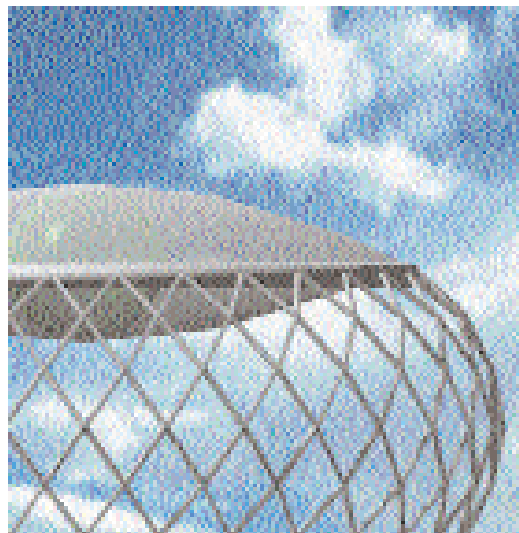


## Structural Membranes 2003

International Conference  
on Textile Composites  
and Inflatable Structures

Barcelona, 30 June-3 July 2003



### Objectives

Textile composites and inflatable structures are becoming increasingly popular for a variety of applications in - among many other fields - civil engineering, architecture and aerospace engineering. Typical examples include membrane roofs and covers, sails, inflatable buildings and pavillions, airships, inflatable furniture, airspace structures etc.

The objectives of STRUCTURAL MEMBRANES 2003 are to collect and disseminate state-of-the-art research and technology for design, analysis, construction and maintenance of textile and inflatable structures.

The ability to provide numerical simulations for increasingly complex membrane and inflatable structures is advancing rapidly due to both remarkable strides in computer hardware development and the improved maturity of computational procedures for nonlinear structural systems. Significant progress has been made in the formulation of finite elements methods for static and dynamic problems, complex constitutive material behaviour, coupled aero-elastic analysis etc. The conference will address both the theoretical bases for structural analysis and the numerical algorithms necessary for efficient and robust computer implementation.

A significant part of the conference will be devoted to discuss advances in new textile composites for applications in membrane and inflatable structures, as well as in innovative design, construction and maintenance procedures.

Sessions related to specific topics of the conference will be introduced by a keynote lecture in the respective field. These keynote lectures will be complemented by invited sessions organised by recognised experts in targeted research and applied areas, as well as by contributed papers.

Structural Membranes 2003 aims to act as a forum for discussing recent progress and identifying future research directions in the field of textile composites and inflatable structures.

### Conference Topics

- Design Methods
- Numerical Methods for Structural Analysis
- New Membrane Materials
- Testing Procedures
- Manufacturing
- Construction Methods
- Maintenance Techniques
- Energetic Aspects
- Climate Impact
- Environmental Aspects
- Pressure Management
- Adaptivity
- Applications: membrane roofs and covers, sails, inflatable pavillions and buildings, airships, airspace structures, inflatable antennas, furniture, etc.

### Conference Chairmen

E. Oñate, Univ. Politecnica de Catalunya,  
Barcelona, Spain

B. Kröplin, University of Stuttgart, Germany

### Important Dates

Deadline for presenting a one-page abstract:

*15 Nov. 2002*

Acceptance of the paper and instructions:

*15 Dec. 2002*

Deadline for submitting a full paper:

*15 Mar. 2003*

Deadline for early payment :

*30 Mar. 2003*

Booking of hotel accomodation: ASAP

### Conference Secretariat

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