The main theme of the TensiNet Symposium 2007 will be Ephemeral Architecture and in particular, the relationship between membrane architecture and the concept of time.

Ephemeral Architecture describes tensile structures built with lightweight membranes, which respond to the principles of firmness, commodity and delight, distancing themselves from the classical interpretation embodied by everlasting, monumental architecture.

The objective of the Symposium is to emphasise how the relationship between membrane architecture and the concept of time is constantly evolving, giving new life to all ephemeral architectural expressions.

Ephemeral Textile Architecture not only responds to the needs of contemporary society for flexible and lightweight building, but is also the result of an ecological design strategy, where temporary constructions can be disassembled after use, leaving future generations free to decide how to use those spaces again.

Sessions are organised on the following topics:

- Ephemeral Architecture
- Tensile structures as lightweight structures and architecture of light
- Designing for lightweight structures
- Translucency and lightweight materials
- New developments and testing
- Textile architecture and thermal behaviour
- Tensile and textile architecture – learning from failures
- Textiles for flexible structures
- Textiles and new applications
- Textiles - the life cycle approach
- Analysis and form-finding studies for lightweight structures
- Textile and time: temporary and adaptable architecture; durability and recycling strategies

Organising Committee:
Mike Barnes (University of Bath), Heidrun Bögner-Balz (Labor Blum), Andrea Campioli (Politecnico di Milano), John Chilton (University of Lincoln), Françoise Fournier (Ferrari), Josep Llorens (Universitat Politecnica de Catalunya), Stefania Lombardi (Canobbio), Marijke Mollaert (Vrije Universiteit Brussel), Anna Mangiarotti (Politecnico di Milano) and Alessandra Zanelli (Politecnico di Milano)

Register on line: www.tensinet2007.promoest.com
Further programme and other details are available at: http://www.tensinet.com/
For further information please contact: ephemeral.architecture@polimi.it

16th April 2007 pm

<table>
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<th>Time</th>
<th>Session</th>
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<tr>
<td>14.20</td>
<td>M.R.H. Luchsinger, R. Crettol, Empa, CH Synergetic Structures and Tensairity®</td>
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<td>15.00</td>
<td>A. Capasso, University of Naples Federico II, I Lightness to light. Light of the lightness</td>
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<td>15.20</td>
<td>Coffee Break</td>
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Guido Nardi Exhibition Room

17.00 Exhibition Opening
  Introduction: Alessandra Zanelli
17.30 Welcome Party
### 17th April 2007 am

#### Rogers Room

**Plenary session: new interests in textile architecture**  
*Chairman: Alex Helisop*

- 9.00  R. Blum, Lab. Blum Stuttgart, D  
  *J. Chilton*, University of Lincoln, UK,  
  T. Devulder, 2hD Ltd Nottingham, UK  
  *Tailoring the environmental properties of membrane constructions*

- 9.25  P. D. Gosling, University of Newcastle, UK,  
  *B.N. Bridgens*, Arup, UK  
  *Material testing & computational mechanics: a new philosophy for architectural fabrics*

- 9.50  T. Stegmaier, H. Planck,  
  *and their thermal and climatic behaviour*

- 10.15  F. Fournier, Ferrari, F  
  *Textile Material Development for textile Construction*

- 10.45  Coffee Break

#### Rogers Room

**Plenary session: membrane architecture and thermal behaviour**  
*Chairman: John Chilton*

- 11.15  F. Decock, F. Descamps, M. Mollaert, Vrije Universiteit Brussel, B  
  *Comfort assessment of spaces enclosed by translucent membranes: from material properties to whole building simulation*

- 11.40  R. Blum, H. Böghner-Balz, J. Kohlnein, Lab. Blum Stuttgart, D  
  *Building Physics of lightweight structures: theory, measurements and numerical analysis*

- 12.05  A. Heslop, Architen Landrell Associates, UK  
  *Membrane architecture: developments in thermal Insulation*

- 12.30  G. Schmid, form TL, D  
  *Multi-layer Insulated Membrane Roof /ETFE cushions and their thermal and climatic behaviour*

- 13.00  Lunch Break

### 17th April 2007 pm

#### IV Room

**New Materials & Applications Session: textiles and new applications**  
*Chairman: Marijke Mollaert, Heidrun Bögner-Balz*

- 14.00  C. Rodriguez, University of Liverpool, UK,  
  *The Swivel Diaphragm: potential applications in transformable architecture*

- 14.30  H. Toyoda, Taiyo Kogyo, JP  
  *New TiO2 materials for membranes*

- 14.50  I. Bergmann, C. Schatzke,  
  Faculty of Architecture RWTH Aachen, D  
  *Lightweight structural systems made of textile reinforced concrete*

- 15.10  L. Gründig, Kurvenbau, D  
  *Facade stresses: building facade redevelopment through textile-screens*

- 15.30  F. Broglini, Blue Office, CH  
  *Air as material for temporary architecture*

- 16.00  Coffee Break

#### Rogers Room

**Plenary session: analysis and formfinding studies for lightweight structures**  
*Chairman: Peter D. Gosling*

- 14.30  R. Blum, H. Böghner-Balz, Lab. Blum Stuttgart, D  
  *Tears and damages in textile architecture: Should tear propagation be considered for design?*

- 14.50  J. Monjo Carrió, Universidad Politécnica de Madrid, E  
  *Common Tensile Roof Pathology and Basic Prevention*

- 15.10  B. Stimpfle, form TL, D  
  *From failures to redesign: job report of Velodrome in Abuja*

- 15.30  Coffee Break

#### Rogers Room

**Building & Environment Session: learning from failures**  
*Chairman: Marijke Mollaert*

- 16.00  C. Rodríguez, University of Liverpool, UK,  
  *The Swivel Diaphragm: potential applications in transformable architecture*

- 16.20  T. Van Mele, M. Mollaert, Vrije Universiteit Brussel, B  
  *Retractable Constructions. “Scissor-Hinged Membrane Structures*

- 16.40  H. Krah, W.L. Gore & Associates, D  
  *Performance demands on architectural fabrics in flexible structures*

- 17.00  N. Kugel, Alfred Rein, Kugel + Rein Architects and Engineers, D  
  *Retractable Roof Fortress Kufstein*

- 17.20  S. Žillner, Žillner and Partner ZT, Wien, A  
  *Retractable membrane roof in the court yard of the city hall, Wien*

- 17.40  Discussion

#### Rogers Room

**Building & Environment Session: textiles for flexible structures**  
*Chairman: Marijke Mollaert*

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- 17.40  Discussion

### 18th April 2007 am

#### Rogers Room

**Plenary session: textiles and time: towards a new temporary architecture**  
*Chairman: Marijke Mollaert, Heidrun Bögner*

- 9.00  R. Wagner, Münich University of Applied Science, D  
  *Daily membrane structures versus high end membrane products*

- 9.30  E. Moncrieff, Kurvenbau, D  
  *Mesh independent specification of field intensity distribution for industrially appropriate loading vector and surface prestress generation*

- 10.00  L. Gruendig, P. Singer, D. Stroebel,  
  Technical University of Berlin, D  
  *Formfinding and patterning of pneumatic structures: “Winter Bathing Ship”, Berlin*

- 10.30  S. Adriaenssens, Vrije Universiteit Brussel, B  
  *Feasibility study of medium span spliced spline stressed membranes*

- 11.00  Coffee Break

#### Rogers Room

**Building & Environment Session: textiles and new applications**  
*Chairman: Françoise Fournier*

- 14.30  M. Lavagna, Politecnico di Milano, I  
  *Lightness and temporariness in life cycle assessment*

- 14.40  R. Wehdorn-Rothmayr, P. Jurewicz, TU Wien, A  
  *Towards life cycle knowledge of form-active structures*

- 15.00  L. Gründig, Kurvenbau, D  
  *Air tree - eco-boulevard of Vallecas, Madrid. A lightweight structure, easily dismantled, and energetically self-sufficient*

- 15.20  C. Langella, 2nd University of Naples, I  
  *Bio-inspired textile materials and flexible films for sustainable design of ephemeral systems*

- 15.40  Discussion