

Working Group 10

Industrial Problem Solving Days

Workshops on new industrial Problems

- Exploratory sessions at which industry can bring specific problems or discuss general issues.
- Groups of industries from one sector or one area.

Aims

- to encourage industry to bring their problems to Macsinet
- to identify the mathematics needed to help industry (especially SMES).

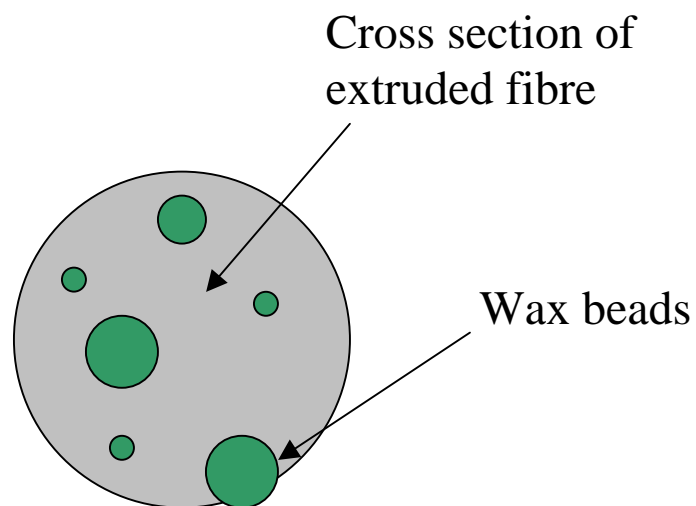
First event:

Workshop on Problems from the Textile Industry

Lancaster university, 4 April 2002

Problem 1. **Acordis**

Embedding wax beads in man-made fibres



Problem:

During extension the inclusions burst due to either abrasion or internal stress

Problem 2. Ahlstrom

Nonwoven fabric formation

Problem:

Nonuniform lateral shrinkage of wetlaid fibres.

Note: similarities in paper making.

Lecture on Soft compressible materials

by Professor S.Toll, Goteborg

Applications:

- insulation,
- Mattresses,
- Testing wool quality.

Discussion on

Integration of Solar Cells in Flexible Materials.

Contribution to **MACSINET** strategic goals.

1. Need of industry – This is being addressed directly

2. What can mathematics offer?

- Modelling to understand processes
- simulation for prediction

3. Follow up

Workshop on nonwovens/paper February 2003
with input from WG14

New initiatives: Similar meetings at

- **ESGI 45** in **Leiden** in February and at
- **ESGI 46** in **Bristol** in April

4. Contribution to Network:

Identification of new industrial problems
which will benefit from mathematical
treatment