APPENDIX

APPENDIX: The Scientific Programme

Monday 23.05.2005

Keynote Lecture 1
P. Ladevèze, G. Lubineau, D. Violeau, D. Marsal - A computational damage micromodel for laminate composites.

Session I
S. Schmauder – Materials modeling from atomistics macro behaviour.

Session II
R. Talreja - A synergistic multiscale modelling approach in damage mechanics of composite materials.
G.Z. Voyiadjis, R.K. Abu Al-Rub - A nonlocal plasticity and damage model for size effect in metal matrix composites.

Session III
A. Hachemi, D. Weichert - A shakedown approach to the problem of damage of fibre-reinforced composites.
H. Zhao, I. Elnasri – Perforation of sandwich panels with cellular solid core under impact loading.
A. Johnson, N. Pentcôte – Influence of delamination on the prediction of impact damage in composites.

Session IV
V. Tvergaard - Debonding or breakage of short fibres in a metal matrix composite.
S. Lenci – A microscale model of elastic and damage longitudinal shear behaviour of highly concentrated long fiber composites.
E. Oleszkiewicz, T. Lodygowski - Analysis of metal matrix composites damage under transverse loading.
D. Marsal, P. Ladevèze, G. Lubineau - *On the out-of-plane interactions between ply damage and interface damage in laminates.*

**Tuesday 24**

**Keynote Lecture 2**
P. Chojnacki, M. Gregula, M. Pańko, K. Siedlecki – *Designing, testing and manufacturing of composite aviation products at “PZL-Świdnik” S.A.*

**Session V**
G. Socha - *Advances and trends in composite material testing.*
S. Elsoufi - *Rheology and fracture of composite materials.*

**Session VI**
D. Leguillon, O. Cherti Tazi, E. Martin - *Prediction of crack deflection and kinking in ceramic laminates.*
T. Kubiak – *Dynamic buckling of thin-walled composite platers.*
M. Jaroniek - *Numerical and experimental models of the fracture in the multi-layered composites.*

**Session VII**
F. Collombet, M. Mulle, Y-H. Grunevald – *Multiscale method for optimal design of composite structures incorporating sensors.*
K. Hofstetter, Ch. Hellmich, H.A. Mang – *Mechanical properties of wood investigated by means of continuum micromechanics.*

**Session VIII**
E.M. Craciun - *Antiplane crack in a pre-stressed fiber reinforce elastic material.*
J. Füssl, R. Lackner, J. Eberhardsteiner – *Multiscale model for upscaling of strength properties of bituminous composites.*
Wednesday 25.05.2005

Session IX AMAS
M. Białas, Z. Mróz - Crack and delamination patterns in thin layers under monotonic and cyclic temperature loading.
G. Mieczkowski, K.L. Molski - Stress field singularities for reinforcing fibre with single lateral crack.
E. Postek, T. Sadowski, S. Hardy - Mechanical Response of a Two-phase Composite

Thursday 26.05.2005

Keynote Lecture 3

Session X
S. Datoussaid, D. Lamblin, G. Guerlement, W. Kakol - Macroscopic strength of perforated steel plates at maximum elastic and limit state.

Session XI
J. Wang, B.L. Karihaloo - Importance of surface/interface effect to properties of materials at nano-scale.
J.G.M. van Mier and P. Trtik - Multi-scale testing for simple micromechanical models of concrete.
L. Berka - On a deformation of polycrystalline structures.
C. Huchette, D. Leveque, N. Carrere - A multiscale damage model for composite laminate based on numerical and experimental complementary tests.
Appendix

Friday 27.05.2005

Keynote Lecture 4
R. Pyrz - Atomic-continuum transition at interfaces of silicon and carbon nanocomposite materials.

Session XII AMAS
K. Konopka - Crack propagation in composites with ceramic matrix.
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