Final Program
Monday, March 1, 2004

Registration: 08:00-08:55

09:00-10:30 Session I
Chair: T. Weller, Technion

Numerical Simulation of Inter Rivet Buckling of Fibre Metal Laminate Aircraft Fuselage Shells
P. Linde, J. Pleitner, Airbus Deutschland GmbH, Hamburg, Germany, H. de Boer, I. Shipperen, Advanced Lightweight Engineering, Delft, The Netherlands.

Buckling of Composite Stiffened Panels: Analysis and Experiment
E. Gal, Dept. of Structural Eng., Faculty of Engineering, Ben-Gurion Univ., Beer Sheva, R. Levy, Faculty of Civil and Environmental Eng., Technion, and H. Abramovich, P. Pevsner, Faculty of Aerospace Eng., Technion, Haifa, Israel.

Contact Buckling and Post-Buckling of Bilaterally Constrained Columns and Plates
H. Chai, Dept. of Solid Mechanics, Materials and Systems, Faculty of Engineering, Tel Aviv University, Ramat Aviv, Israel.

Coffee Break 10:30-11:00

11:00-12:30 Session II
Chair: I. Herszberg, CRC-ACS

POSICOSS - Improved Postbuckling Simulation for Design of Fibre Composite Stiffened Fuselage Structures
R. Zimmermann and R. Rolfes, Inst. of Structural Mechanics, DLR, Braunschweig, Germany.

Identification of Realized Material Properties in Stiffened Composite Shells
R. Rikards, Inst. of Materials and Structures, RTU, Riga, Latvia, H. Abramovich, Faculty of Aerospace Eng., Technion, Haifa, Israel, O. Ozolinsh, J. Auzinsh, S. Ruchevskis, Inst. of Materials and Structures, RTU, Riga, Latvia.

Buckling and Postbuckling Tests of Stiffened Composite Cylindrical Shells
C. Bisagni and P. Cordisco, Dept. of Aerospace Eng., POLIMI, Milano, Italy.

Lunch 12:30-14:30

14:30-16:00 Session III
Chair: R. Rikards, RTU

Axial Buckling of Laminated Composite Stringer Stiffened Curved Panels – Tests vs. FE Predictions
H. Abramovich, P. Pevsner, T. Weller, Faculty of Aerospace Eng., Technion, Haifa, N. Pecker and G. Ghilai, IAI, Eng. Division, Ben-Gurion Airport, Israel.

Buckling and Postbuckling of Stringer Stiffened Fibre Composite Curved Panels - Tests and Computations
H. Klein, R. Zimmermann, and A. Kling, Inst. of Structural Mechanics, DLR, Braunschweig, Germany.

The Behavior of Laminated Composite Stringer Stiffened Curved Panels under Torsion Moments - Tests vs. FE Predictions
H. Abramovich, P. Pevsner, T. Weller, Faculty of Aerospace Eng., Technion, Haifa, Israel and C. Bisagni, Dept. of Aerospace Eng., POLIMI, Milano, Italy.

Coffee Break 16:00-16:30

16:30-18:00 Session IV
Chair: G. Ghilai, IAI

Postbuckling Analysis of CFRP Stringer Stiffened Panels – Benchmarking and Development of Fast Tools
T. Möcker, H.-G. Reimerdes, Dept. of Aerospace and Lightweight Structures, RWTH, Aachen, R. Degenhardt, R. Zimmermann, Inst. of Structural Mechanics, DLR, Braunschweig, Germany.

Fast Simulation Tools to Calculate Buckling and Postbuckling Loads of Laminated Composite Stringer Stiffened Curved Panels under Axial Loading
P. Pevsner, H. Abramovich and T. Weller, Faculty of Aerospace Eng., Technion, Haifa, Israel.

Postbuckling Simulation of Stiffened Panels by Use of Strip Elements
T. Möcker and H.-G. Reimerdes, Dept. of Aerospace and Lightweight Structures, RWTH, Aachen, Germany.

Final Program
Tuesday March 2, 2004

09:00-10:30 Session V
Chair: H.-G. Reimerdes, RWTH

Postbuckling Analysis of Fibre Composite Stringer Stiffened Panels-Development of a Fast Design Tool,
A. Kling, R. Degenhardt, R. Zimmermann, Inst. of Structural Mechanics, DLR, Braunschweig, Germany.

Postbuckling Optimisation of Composite Stiffened Panels Using Global Approximation Techniques
L. Lanzi and V. Giavotto, Dept. of Aerospace Eng., POLIMI, Milano, Italy.

Surrogate Modeling in Design Optimization of Stiffened Composite Shells
R. Rikards, Inst. of Materials and Structures, RTU, Latvia, H. Abramovich, Faculty of Aerospace Eng., Technion, Haifa, Israel, K. Kalnins, A. Kovalevs, A. Ivashkovs, Inst. of Materials and Structures, RTU, Latvia.

Coffee Break 10:30-11:00

11:00-12:30 Session VI
Chair: R. Zimmermann, DLR

Structure Design Guidelines for Stiffened Composite Structures
E. Masiero, Helicopter System Design Dept., AGUSTA, Cascina Costa and C. Bisagni, Dept. of Aerospace Eng., POLIMI, Italy.

COCOMAT - Improved Material Exploitation at Safe Design of Composite Airframe Structures by Accurate Simulation of Collapse
R. Degenhardt, R. Rolfes, R. Zimmermann, K. Rohwer, Inst. of Structural Mechanics, DLR, Braunschweig, Germany

Optimisation of Laminated FRP Shells Employing Analytical Lower Bounds
J.G.A. Croll, Dept of Civil and Environmental Eng., University College London, UK and S. Yamada, Dept. of Architecture and Civil Eng., Toyohashi University of Technology, Japan.

Lunch 12:30-14:30

14:30-16:00 Session VII
Chair: C. Bisagni, POLIMI

Influence of Modelling and Solution Algorithms in Numerical Post Buckling Simulation of Aircraft Fuselage Stiffened Panels
P. Linde, J. Pleitner, Airbus Deutschland GmbH, Hamburg, A. Schulz, W. Rust, CADFEM GmbH, Niederlassung Hannover, Burgdorf, Germany.

A Review of Postbuckling Composite Aerospace Structures Research in Australia,
R.S. Thomson and M.L. Scott, CRC-ACS, Fishermans Bend, Victoria, Australia.

Efficient and Robust Modelling of Postbuckling Stiffened Composite Aerostructures Undergoing Mode-Jumping
B.G. Falzon, Dept. of Aeronautics, Imperial College London, UK.

Coffee Break 16:00-16:30

16:30-18:30 Session VIII
Chair: R. Rolfes, DLR

The ONSERT: A New Joining Technology for Sandwich Structures
G. Kress and P. Ermanni, Structure Technologies, Inst. of Mechanical Systems, ETH, Zurich, Switzerland.

Impact Damage Resistance of Buckled Carbon/Epoxy Panels
I. Herszberg, CRC-ACS, Fishermans Bend, Victoria, Australia, T. Weller, Faculty of Aerospace Eng., Technion, Haifa, Israel.

Folding Composite Stabilizer for a Helicopter
P. Riesel, G. Ghilai, N. Hackman, Y. Alkabetz, IAI, Eng. Division, Ben-Gurion Airport, D. Barlam, Y. Bainer, IAI, Ramta Division, Beer-Sheva, Israel.

Buckling Behavior of Laminated Composite Cylindrical Shells: Theory and Finite Element Implementation
J.N. Reddy and R.A. Arciniega, Dept. of Mechanical Eng., Texas A&M University, College Station, TX, USA.