Session 3C - Transient analysis

- Fault Detection Procedures employing Wavelet Transform.
  W.J. Staszewski, G.R. Tomlinson, University of Manchester, UK

- Analysis of Nonstationary noise and vibration signals.
  H. Van der Auweraer, J. Leuridan, LMS International, Belgium
  H. Vold, Vold Solutions, USA

- Detection and quantification of the link-joint backlash of a robot—Time-frequency signal representation and feature extraction.
  M.-C. Pan, B. Verbeure, H. Van Brussel, P. Sas, K.U.Leuven, Belgium

- The use of wavelet transform for analysis of transient noise.
  S. Gade, H. Herlufsen, Brüel & Kjær, Denmark

Session 3D - Energy methods

- An experimental - analytical SEA identification and applied validation criteria of a box type structure.
  K. De Langhe, P. Sas, K.U.Leuven, Belgium

- Columbus APM : In-orbit vibro-acoustic analysis using SEA.
  G. Alonso Rodrigo, M. Klein, ESTEC/YMD, The Netherlands
  G. Borello, INTERAC, France

- Toward a complete definition of the envelope energy model for high frequency vibrations
  A. Carcaterra, A. Sestieri, University of Rome 'La Sapienza', Italy

- Numerical simulation of waves in beams by using the Finite Element Method.
  K. De Langhe, P. Sas, D. Vandepitte, K.U.Leuven, Belgium

Session 4A - Model updating

- Experience in Mechanical Joint Model Updating.
  J.E. Mottershead, M.I. Friswell, G.H.T. Ng, University College of Swansea, UK
  J.A. Brandon, University of Wales College of Cardiff, UK

- Model updating method based on experimental dynamic analysis.
  G. Vanderborck, N. Breschi, Thomson Sintra Activités Sous-Marines, France
  Y. Ravalard, P. Level, Université de Valenciennes et du Hainaut Cambrésis, France

- Modifications analysis of mass and stiffness matrices updated by a global algorithm.
  A. Aiad, Université de Blida, Algeria
Session 4B - Modal testing and case studies

- Vibration isolation prediction: Rotations and moments included.
  M.A. Sanderson, J. Blomqvist, Chalmers University of Technology, Sweden 519

- An efficient strategy for performing a modal analysis on machine tools.
  F. Albertz, Technische Universität München, Germany 529

- The effect of global shape and internal structure of tomatoes on the experimental mode shapes.
  J. Langenakens, X. Vandewalle, J. De Baerdemaeker, K.U. Leuven, Belgium 541

Session 4C - Automotive acoustics (NVH).

- Interior noise investigation of a passenger car by means of a mixed vibro-acoustics modal analysis.
  Q. Zhang, Renault S.A., France
  D.L. Brown, University of Cincinnati, USA 551

- Identification of structure borne noise contribution of air conditioning compressor to vehicle interior noise.
  J. Romano, J.A. López, FASA RENAULT, Spain 565

- Active acoustic and structural acoustic control of car cabin noise-experimental study on a scale model
  W. Dehandschutter, P. Sas, C. Bao, K.U. Leuven, Belgium 575

Session 4D - Active Noise and Vibration Control

- Generation of periodic trajectories for optimal robot excitation

- An adaptive tuned vibration absorber inside a rotating spindle of a machine tool
  G. Desanghere, E. Vansevenant, Dynamic Engineering, Belgium 597

- Independent modal/rate feedback control of a cantilever beam applying reciprocal modal filter vectors.
  J.F. Schultze, S.J. Shelley, R.W. Rost, University of Cincinnati, USA 607
**Session 5A - Rotating machinery**

- Signal processing procedures for trouble-shooting rotating equipment.  
  **J.R. Blough, M.W. Landgraf, D.L. Brown, University of Cincinnati, USA**  
  **H. Vold, Void Solutions, USA** 621

- On the unstable regions due to asymmetrical factors of rotating asymmetrical bodies.  
  **K. Kono, K. Ito, Naruto University of Education, Japan**  
  **K. Kawano, Furuma Laboratory of Sciences, Japan** 633

- Vibration signatures of coupling faults in rotating machinery: An experimental study.  
  **Y. Laperches, J.L. Nyst, B. Leduc, Université Libre de Bruxelles, Belgium**  
  **G. D’Ans, Laborelec, Belgium** 645

**Session 5B - Damage detection**

- Damage detection in truss structures using a direct updating technique.  
  **W. D'Ambrogio, P. Beomonte Zobel, Università degli Studi di L'Aquila, Italy** 657

- Model updating and failure detection based on experimental FRF's: Case study on a space frame structure  
  **J.A. Pereira, W. Heylen, P. Sas, K.U. Leuven, Belgium**  
  **S. Lammens, LMS International, Belgium** 669

- A comparison of methods to locate damage in structures.  
  **Y.H. Zhang, M.I. Friswell, J.E. Mottershead, University College of Swansea, UK** 683

**Session 5C - Automotive acoustics (NVH).**

- Optimization of engine mounting configurations.  
  **P.S. Heyns, J.A. Snyman, University of Pretoria, South Africa**  
  **C.B. Nel, Technikon Pretoria, South Africa** 697

- Correlation of acoustic modal analysis with operating data for road noise problems.  
  **K. Wyckaert, H. Van der Auweraer, W. Hendricx, LMS International, Belgium** 707

- Active attenuation of engine related interior noise of passenger cars.  
  **C. Bao, P. Sas, K.U. Leuven, Belgium** 721
Session 5D - Vibro-acoustic models in acoustics.

- An efficient coupling procedure for handling large size interior structural-acoustic problems.
  J.P. Coyette, Y. Dubois-Pélerin, Numerical Integration Technologies N.V., Belgium
  729

- Vibro-acoustical modal analysis: reciprocity, modal symmetry and model validity
  K. Wyckaert, LMS International, Belgium
  F. Augusztinovicz, K.U.Leuven, Belgium
  739

Session 6A - Model updating

- A review of case studies in model updating.
  M. Imregun, Imperial College of Science, UK
  761

- Modal analysis of a steel/concrete composite bridge: Linking finite element analysis and experimental data.
  Y. Deger, R. Cantieni, S. Pietrzko, EMPA, Switzerland
  777

- F.E.M. model updating and synthesis of a mixed aluminium/composite robot arm.
  M.M. Gola, A. Gugliotta, A. Somà, Polytechnic of Turin, Italy
  G. Santucci, Università degli studi di Roma ‘La Sapienza’, Italy
  789

Session 6B - Active Noise and Vibration Control

- Active Structural Acoustic Control of Simulated Structure Borne Road Noise.
  R. Van Cauter, P. Sas, W. Dehandschutter, K.U.Leuven, Belgium
  801

- Structural analysis method for finding spectra of actively controlled structures.
  A.V. Pesterev, G.A. Tavrizov, State Institute of Physics and technology, Russia
  803

- Advanced motion control methods for machine-axes
  813
Session 6C - Automotive acoustics (NVH).

- Simulation of shielding of diesel engine noise by means of physical and numerical models.
  F. Augusztinovicz, P. Sas, F. Penne, K. U. Leuven, Belgium 825

- Acoustic Source Location in vehicle cabins and free-field with nearfield acoustical holography via acoustic arrays.
  D. Hallman, J. S. Bolton, Purdue University, USA
  S. Dumbacher, D. L. Brown, SDRL, University of Cincinnati, USA
  B. W. Libbey, M. J. Lally, The Modal Shop, USA 841

- Boundary element calculation of external field around simple structures applied to vehicle analysis.
  H. Giardi, X. Bohineust, Citroën, France 853

Session 6D - Finite element method for dynamic analysis

- An exact and direct technique for modelling of beam-systems with expected degrees of freedom.
  S. L. Chen, M. Géradin, Université de Liège, Belgium 867

- Dynamic analysis of a flexible robot arm moving in a prismatic joint.
  C.-W. Jen, D. Johnson, Université Catholique de Louvain, Belgium 879

- Comparison of forced response reanalysis techniques - their potentials and limitations.
  D. Moraux, P. Level, Y. Ravalard, University of Valenciennes, France 887

Session 7A - Source localisation and transfer path analysis

- Road/Tyre noise development using noise path analysis techniques.
  U. Fingberg, Ford-Werke AG, Germany 899

- Identification of noise sources and transmission paths in railway vehicles using conditioned intensity.
  M. Recuero, M. Sobreira, C. Gil, J. Grundman, Politechnic University of Madrid, Spain 911

- Sound transmission measurements on curved panels with plane wave excitation
  H. M. M. van der Wal, NLR, The Netherlands 921

- Transfer path analysis applied to the characterisation of powertrain-generated structure-borne noise in vehicles.
  D. Storer, G. Toniato, Centro Richerche FIAT, Italy 923