Keynote

Session Keynote presentation

Shapes & DOF: on the use of modal concepts in the context of parametric non-linear studies
E. Balmes \(^{1,2}\)

\(^{1}\) Arts et Métiers Paristech, France
\(^{2}\) SDTools, France

Automotive NVH – Methodology for Future Innovative Product Development
P.-O. Sturesson \(^{1}\)

\(^{1}\) AB Volvo, Sweden
Synthesis of vibration signals with prescribed power spectral density and kurtosis value
E. Pesaresi (1), M. Troncossi (1)
(1) University of Bologna, Italy

Analysis of a transport equation as boundary condition in an acoustic transmission line.
E. De Bono (1), M. Collet (1), S. Karkar (1)
(1) Ecole Centrale de Lyon, France.

On the noise reduction of active sidewall aircraft panels using feedforward control with embedded systems
M. Misol (1), S. Algermissen (1), M. Rose (1)
(1) DLR - German Aerospace Center, Germany

A multimodal nonlinear piezoelectric vibration absorber
G. Raze (1), B. Lossouarn (2), A. Paknejad (3), G. Zhao (3), J.-F. Deu (2), C. Collette (3), G. Kerschen (1)
(1) University of Liège, Belgium
(2) CNAM - Conservatoire National des Arts et Métiers, France
(3) Université Libre de Bruxelles, Belgium

Mechatronic control of the car response based on VFC
D. Antonelli (1), L. Nesi (1), G. Pepe (1), A. Carcaterra (1)
(1) Sapienza University of Rome, Italy

FLOP: feedback local optimality control of the inverse pendulum oscillations
G. Pepe (1), D. Antonelli (1), L. Nesi (1), A. Carcaterra (1)
(1) Sapienza University of Rome, Italy

Active noise control in pipes and ducts using carbon nanotube thermophones
A. Barnard (1), S. Senczyszyn (1)
(1) Michigan Technological University, United States of America

Vibration suppression using the concept of a semi-active magnetorheological inerter device
M. Tipuric (1), D. Wagg (1), N. D. Sims (1)
(1) University of Sheffield, United Kingdom

Active vibration reduction on a quadrocopter
T. Bartel (1), H. Atzrodt (1), D. Wilczynski (1)
(1) Fraunhofer Institute for Structural Durability and System Reliability, Germany

H-infinity optimization of positive position feedback control for mitigation of nonlinear vibrations
G. Zhao (1), A. Paknejad (1), G. Raze (2), G. Kerschen (2), C. Collette (1)
(1) Université Libre de Bruxelles, Belgium
(2) University of Liège, Belgium
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(1) University of Udine, Italy

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(1) University of Southampton, United Kingdom
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(1) Leibniz University Hannover, Germany
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(1) Fraunhofer Institute for Building Physics, Germany
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(1) IK4-Ikerlan, Spain
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(2) BMW Group, Germany

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(1) CNAM - Conservatoire National des Arts et Métiers, France

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A. Carvalho de Sousa\(^1,2\), M. Bartczak Camargo\(^3\), A. Lenzi\(^3\), C. Claeys\(^{1,2}\), E. Deckers\(^{1,2}\)

(1) KU Leuven, Belgium
(2) Flanders Make, Belgium
(3) Federal University of Santa Catarina, Brazil

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### CM

#### Session Condition monitoring

Detection of faulty accelerometer mounting

R. B. Randall\(^1\), W. A. Smith\(^1\)

(1) University of New South Wales, Australia

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L. C. Navarro\(^1\), L. C. S. Goes\(^1\)

(1) ITA - Instituto Tecnológico de Aeronáutica, Brazil

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D. Siano\(^1\), M. A. Panza\(^1\)

(1) CNR - National Research Council, Italy

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S. Kanarachos\(^1\), M. Kalliris\(^1\), M. Blundell\(^1\), R. Kotsakis\(^2\)

(1) Coventry University, United Kingdom
(2) Aristotle University of Thessaloniki, Greece

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### CMRM

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M. Buzzoni\(^1\), E. Soave\(^1\), G. D’Elia\(^1\), E. Mucchi\(^1\), G. Dalpiaz\(^1\)

(1) University of Ferrara, Italy

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(1) Vrije Universiteit Brussel, Belgium

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(1) Politecnico di Milano, Italy

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(1) Vrije Universiteit Brussel, Belgium
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(1) Siemens AG, Germany
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(1) Budapest University of Technology and Economics, Hungary

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(1) SAMTECH S.A., Belgium

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E. T. Chipato (1), A. D. Shaw (1), M. I. Friswell (1)
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(1) NTNU - Norwegian University of Science and Technology, Norway

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T. Beberniss (1)
(1) United States Air Force Research Lab, United States of America

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E. Pierro (1), F. Bottiglione (2), G. Carbone (2)
(1) Università degli Studi della Basilicata, Italy
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(1) University of Liverpool, United Kingdom

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(1) Swansea University, United Kingdom
(2) University of Bristol, United Kingdom

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(1) University of São Paulo, Brazil
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(1) CETIM - Centre Technique des Industries Mécaniques, France

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PBNv2

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(1) Institute of Fundamental Technological Research Polish Academy of Sciences, Poland.
(2) Adaptronica sp. z o.o., Poland.

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Session Structural health monitoring

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(1) CETIM - Centre Technique des Industries Mécaniques, France
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(1) Università dell’Aquila, Italy
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C. Schedlinski (1), C. Marzok (2), U. Wiesendahl (2)
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(2) Carl Zeiss SMT GmbH, Germany

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J. Ortega Almirón (1,2), F. Bianciardi (1), P. Corbeels (1), W. Desmet (2,3)
(1) Siemens Industry Software NV
(2) KU Leuven, Belgium
(3) Flanders Make, Belgium
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Session Tuned vibration absorbers and dampers

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M. Berardengo (1), S. Manzoni (2), M. Vanali (1), A. M. Conti (2)
(1) Università degli Studi di Parma, Italy
(2) Politecnico di Milano, Italy

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M. Soubeyroux (2), C. Dumoulin (1), A. Deremaeker (1)
(1) Université Libre de Bruxelles, Belgium
(2) ENSTA ParisTech, France

Dynamics of torsional vibration damper (TVD) pulley: implementation of elastomeric constitutive law
(1) Université de Lyon, France
(2) AB Volvo, France

Effect of temperature on the tuning of a piezoelectric resonant shunt composed of variable inductance or variable capacitance
R. Darleux (1), B. Lossoeur (1), J.-F. Deü (1)
(1) CNAM - Conservatoire National des Arts et Métiers

Optimization of multi-modal targeted energy transfer performance of nonlinear passive vibration absorbers
K. Dekemele (1), P. Van Torre (1), M. Loccuferi (1)
(1) Ghent University, Belgium

Modeling the amplitude and magnetic dependency to the vibration isolation effect for magneto-sensitive rubber isolation system by assessing the energy flow
B. Wang (1), L. Kari (1)
(1) KTH Royal Institute of Technology, Sweden

Suppression of the wind-induced vibration of high-rise buildings with inerter systems
Y. Xia (1), R. Zhang (2), M. I. Friswell (1), Y. Cao (2)
(1) Swansea University, United Kingdom
(2) Tongji University, People’s Republic of China

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(1) Politecnico di Milano, Italy
(2) Bosch VHIT SpA, Italy
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A. Scholz (1), P. Marinova (1), N. Schmidt (1), D. Vieker (1), S. Orlando (2), B. Van Genechten (2)
(1) ZF Friedrichshafen AG, Germany
(2) Siemens PLM Software, Belgium

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D. De Gregoriis (1,2), F. Naets (2,3), P. Kindt (1), W. Desmet (2,3)
(1) Goodyear Innovation Center* Luxembourg, Luxembourg
(2) KU Leuven, Belgium
(3) Flanders Make, Belgium

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J. E. Furlich (1), J. Blough (1), D. L. Robinette (1)
(1) Michigan Technological University, United States of America

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J. C. M. Fernandes (1), M. Silveira (1)
(1) UNESP - São Paulo State University, Brazil

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R. Ullmann (1,2), S. Sicklinger (1), G. Müller (2)
(1) BMW Research, Innovations, New Technologies, Germany
(2) Technical University of Munich, Germany

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E. R. Gomez (1,2), I. L. Arteaga (2,3), L. Kari (2)
(1) Scania CV AB, The Royal Institute of Technology, Sweden.
(2) KTH Royal Institute of Technology, Sweden.
(3) Eindhoven University of Technology, The Netherlands.

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S. Sicklinger (1), R. Ullmann (1)
(1) BMW Research, New Technologies, Innovations, Germany

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(1) Université de Haute-Alsace, France
(2) Faurecia Automotive Seating, France

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R. Stelzer (1), T. Delpero (1), R. D’Amico (1)
(1) Autoneum Management AG, Switzerland

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A. Gaudin (1)
(1) Groupe PSA, France
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M.-A. Campana (1), F. Scarpa (1), M. Ouisse (2), E. Sadoulet-Reboul (2)
(1) University of Bristol, United Kingdom
(2) FEMTO-ST Institute, France

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(1) Ecole Centrale de Lyon, France
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(1) KU Leuven, Belgium
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(1) University of Naples Federico II, Italy
(2) Université Bourgogne Franche-Comté, France

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(1) KU Leuven, Belgium
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(1) IIT Delhi, India

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(1) University of Sydney, Australia