



IOMAC'17

7th International Operational Modal Analysis Conference

2017 May10-12 Ingolstadt - Germany

CONFERENCE PROGRAM

Conference takes place THI, Esplanade 10, 85049 Ingolstadt, GPS: degr. of latitude: 48.767366 | degr. of longitude: 11.431777

in new G-Building G 104 (conference office), G 101, G 011 and G 117

G102	Two Days Pre-Course: "Operational Modal Analysis: Background, Theory & Practice" (only with reservation, extra fee)	Ventura, Gade	Monday, May 8th Tuesday, May 9th	08h30-17h00 08h30-17h00	
Session 1A - Measurement and Identification Chairman: Bekker			Wednesday, May 10th	8h30-9h10	
G011	Operational Modal Analysis in Model Updating of Truss Railway Bridge	Poprawa	Silesian University of Technology	Gliwice	Poland
G011	Deviations of Measured Damping Coefficients Caused by Different Estimation Algorithm for Modal Analysis Results	Luegmair	ARRK Engineering	Munich	Germany
Session 1B Identification Techniques and model validation Chairman: Brandt			Wednesday, May 10th	8h30-9h10	
G117	Model Updating Based Nonlinear Joint Identification in Structures under Random Excitation	Kashani	Aerospace Research Institute/Ministry of research, science and technology	Tehran	Iran
G117	A Method for the Estimate of Modal Parameters of Time-Dependent Aerospace Structural Systems using Operational Data	Coppotelli	University of Rome "La Sapienza"	Rome	Italy

G011	Opening ceremony		Wednesday, May 10th	09h15-09h45	
G011	Keynote lecture Dr. Marc Böswald, DLR - German Aerospace Center New Concepts for Ground and Flight Vibration Testing of Aircraft Based on Output-Only Modal Analysis		Wednesday, May 10th	09h45-10h45	
Hall G	Coffee break		Wednesday, May 10th	10h45-11h20	
Session 2A – SHM in civil structures Chairman: Bernagozzi			Wednesday, May 10th	11h20-12h40	
G011	Experimental validation of the effectiveness of automated OMA for structural health monitoring of existing bridges in seismically prone areas	Rainieri	University of Molise	Campobasso	Italy
G011	Stability Diagrams using Operational Modal Analysis and Sliding Filters	Olsen	Aarhus University	Aarhus	Denmark
G011	OMA Modal Indication By Sensitivity To Added Artificial Noise	Juul	Aarhus University	Aarhus	Denmark
G011	The robust smooth orthogonal decomposition method for operational modal analysis	Brattstroem Wagner	Pontificia Universidade Católica do Rio de Janeiro	Rio de Janeiro	Brazil

Session 2B - Applications to Mechanical Structures Chairman: Markert			Wednesday, May 10th	11h20-13h00	
G117	Position-dependent modal testing of CNC machine tools using operational modal analysis	Chan	National Chung Hsing University	Taichung	Taiwan ROC
G117	Operational Modal Analysis for rotating machines: challenges and solutions	Di Lorenzo	Siemens Industry Software NV	Leuven	Belgium
G117	Application of Operational Modal Analysis to Industrial Machinery and Plants	Schneider	KÖTTER Consulting Engineers Berlin GmbH	Berlin	Germany
G117	Identifying the structural behavior of a specimen during spacecraft acoustic testing by Operational Modal Analysis	Peeters	Siemens Industry Software	Leuven	Belgium
G117	Damping Ratios of Monolithic Glass Using Operational Modal Analysis	Lopez Aenlle	University of Oviedo	Gijon	Spain
Reimanns bistro	Lunch break	Wednesday, May 10th		13h00-14h30	
Session 3A – SHM and damage detection Chairman: Montalvao			Wednesday, May 10th	14h30-15h30	
G011	OMA techniques optimization for SHM of typical industrial structures	Mironov	Vibroacoustic laboratory	Riga	Latvia
G011	Experimental construction of mode shapes of a simply supported bridge by using dynamic responses extracted from a moving vehicle under impact excitation	Qi	The University of Hong Kong	Hong Kong	China
G011	Monitoring historical masonry industrial chimney by means operational modal analysis: A case study	Sancibrian	University of Cantabria	Santander	Spain
Session 3B - Applications to Civil Structures Chairman: Grosel			Wednesday, May 10th	14h30-16h10	
G117	Dynamic monitoring and identification of a new Italian cable-stayed bridge during dynamic load tests	Foti	Polytecnic of Bari	Bari	Italy
G117	Finite Element Model Updating of a Historical Minaret via Operational Modal Analysis	Ercan	Ege University	Izmir	Turkey

G117	Dynamic Study of a Culvert for High-Speed Train Lines	Fernández	Technical University of Madrid (UPM)	Madrid	Spain
G117	Wind Load of Christ the King Monument	Wojcicki	Wroclaw univ. of Technology	Wroclaw	Poland
G117	Preliminary OMA results on a soft calcarenite stone bell-tower in Mola di Bari (Italy)	Foti	Technical University of Bari	Bari	Italy
Session 3C – Filtering Chairman: Vold			Wednesday, May 10th	14h30-15h30	
G101	The Vold-Kalman Order Tracking Filter - Implementation and Applications (60 minutes tutorial)	Vold		Måndalen	Norway
Bus	Social program: Beer tasting at Weltenburg Abbey Ship tour from Weltenburg to Kelheim Dinner in traditional restaurant “Kuchlbauer” in Abensberg		Wednesday, May 10th	16h10-22h15	
Session 4A - Model Validation and Updating Chairman: Döhler			Thursday, May 11th	09h20-10h40	
G117	Model Updating and Parameter Identification of a Steel Cantilever Beam using Forced and Ambient Vibration Responses in Different Conditions	Sabamehr	Concordia University	Montreal	Canada
G117	Variance computation of modal parameter estimates from UPC subspace identification	Döhler	Inria Rennes	Rennes	France
G117	Optimal modal parameters estimation from operational data using the iterative MLMM Method	El-Kafafy	Vrije Universiteit Brussel	Brussels	Belgium
G117	Evaluation of Results' Error in OMA	Grosel	Wroclaw Univ. of Technology	Wroclaw	Poland

Session 4B - Wind turbines Chairman: Aenlle			Thursday, May 11th	09h00-10h20	
G011	Experimental modal identification of full- scale wind turbine towers	Saudi	Housing and Building National Research Center	Giza	Egypt
G011	Application of a Modal-driven Damage Assessment Framework for Ice Localization and Quantification on Wind Turbine Blades	Hansen	Aarhus University	Aarhus	Denmark
G011	Modal Analysis of a wind turbine tower with concrete-steel hybrid design during installation of Rotor and Generator	Botz	Technical University of Munich	Munich	Germany
G011	Application of Operational Modal Analysis to Wind Turbines	Rachholz	University of Rostock	Rostock	Germany
Hall G	Coffee break		Thursday, May 11th	10h40-11h00	
Session 5A - Comparison with Traditional EMA Chairman: Bienert			Thursday, May 11th	11h00-12h20	
G011	And yet another method for the identification of Modal Constants in Experimental Modal Analysis	Montalvao	Bournemouth University	Poole	United Kingdom
G011	Forced and Ambient Vibration Tests of a Six-Story Precast Concrete Building	Celik	Middle East Technical University	Ankara	Turkey
G011	Modal analysis of a hyperelastic membrane for the development of a musical instrument	Bekker	Stellenbosch University	Stellenbosch	South Africa
G011	Experimental and operational modal analysis identification approach as high efficient optimisation with artificial intelligence methods	Sitarz	West Pomeranian University of Technology	Szczecin	Poland

Session 5B -Identification Techniques for Civil Structures Chairman: Döhler			Thursday, May 11th	11h00-12h20	
G117	Input/output versus output only modal analysis of a stress-ribbon footbridge	Cara	Universidad Politecnica de Madrid	Madrid	Spain
G117	Cross-Evaluation of Two Metrics for the Assessment of Estimated State-Space Systems in Operational Modal Analysis	Marwitz	Bauhaus University Weimar	Weimar	Germany
G117	In-Operation modal identification of rotating machinery using the INOPMA algorithm	Ghalishooyan	Ferdowsi University	Mashhad	Iran
G117	Operational Modal Analysis of Nur-U Osmaniye Mosque in Istanbul	Dabanli	Fatih Sultan Mehmet Vakif University	Istanbul	Turkey
Session 5C - Special Techniques Chairman: Grosel			Thursday, May 11th	11h00-12h20	
G101	A Methodology to Validate Simply-Supported structures Before the Final Assembly	Fernández Pelayo	University of Oviedo	Gijon	Spain
G101	Operational Modal Analysis with Exogenous Inputs Using Instrumented Insoles	Fernández	Technical University of Madrid (UPM)	Madrid	Spain
G101	LEx - Levitation and Excitation Method for Operational Modal Analysis	Kamenzky	University of Applied Sciences Wildau	Wildau	Germany
G101	Determining minimum number of required accelerometer for output-only structural identification of frames	Nabavian	Babol University of Technology	Babol	Iran
Reimanns bistro	Lunch break		Thursday, May 11th	12h20-13h30	
G011	Keynote lecture Prof. Masaaki Okuma, Tokyo Institute of Technology Development of a Deflection Monitoring System for Wind Turbine Blades		Thursday, May 11th	13h30-14h30	

Bus	Social program Group A (only): Audi production tour Audi museum Conference Dinner		Thursday, May 11th	14h45-21h00	
Session 6A - Noise Control Chairman: Foti					
G011	On the Different Derivatives of the Half Spectral Density	Amador	Technical University of Denmark	Kgs. Lyngby	Denmark
G011	Estimating Frequency Response Functions by Pole-Residue Operations	Hu	University of Rhode Island	Narragansett	USA
G101	Meeting of the IOMAC Scientific Committee (invited members only)	Lopez-Aenlle	Thursday, May 11th	14h45-15h45	
Bus	Social program Group B (only): Audi production tour Conference Dinner		Thursday, May 11th	16h00-21h00	
Session 7A - Modal Scaling Chairman: Okuma					
G011	Using three-parameter sine fitting for scaling mode shapes with OMAH	Brandt	University of Southern Denmark	Odense	Denmark
G011	Comparison of OMA techniques and effect of added masses on the modal properties of a small steel frame	Bernagozzi	University of Bologna	Bologna	Italy

Session 7B - Stiffness and Stress Estimation Chairman: Dabanli			Friday, May 12th	9h00-9h40	
G117	Calculation of Dynamic Stresses in Viscoelastic Sandwich Beams Using Operational Modal Analysis	Fernández Pelayo	University of Oviedo	Gijon	Spain
G117	Determination of Static Stiffness of Mechanical Structures from Operational Modal Analysis	Melnikov	SBS Bühnentechnik	Dresden	Germany
G011	Keynote Lecture Prof. Daniel J. Rixen, Technical University Munich Predicting In-Operation Dynamics by Assembly of Measured Components		Friday, May 12th	09h40-10h40	
Hall G	Coffee break		Friday, May 12th	10h40-11h10	
Session 8A - Identification Techniques for Mechanical Structures Chairman: Okuma			Friday, May 12th	11h10-11h50	
G011	Use of statistical shape analysis as an optical non-contact method for condition monitoring of turbomachines	Gwashavanhu	University of Pretoria	Hatfield Pretoria	South Africa
G011	Output-only subspace and transfer matrix-based damage localization and quantification	Döhler	Inria Rennes	Rennes	France
Session 8B - Load and Response Estimation Chairman: Dabanli			Friday, May 12th	11h10-11h50	
G117	An Instrumented Insole for Monitoring and Acoustic Positioning of Human Loads	Hermanns	Technical University of Madrid	Madrid	Spain
G117	Damping of Laminated Glass Beams with Polyvinyl Butyral Interlayer	García Ismael	University of Oviedo	Gijon	Spain

G101, G011, G117	Round table discussions different topics of OMA are discussed in expert "cells"		Friday, May 12th	11h50-12h40
G011	Closing Session		Friday, May 12th	12h40-13h00
Reimanns bistro	Lunch break		Friday, May 12th	13h00-14h00
G101	Expert seminar "Advanced Operational Modal Analysis using Stochastic Subspace Identification and its Applications" (only with reservation, extra fee)	Andersen, Döhler	Friday, May 12th	14h00-18h00