mode FRONTIER
INTERNATIONAL USERS' MEETING
12th > 13th MAY 2014 | TRIESTE, (ITALY)

AGENDA
12th MAY

🕐	**KEYNOTE** SESSION		**[PLENARY ROOM]**
8:00AM - 9:00 AM			Registration
9:00AM - 9:30AM	Carlo Poloni	ESTECO SpA	President's Welcome Speech | Modularity Mastering Complexity
9:30AM - 10:00AM	Takashi Yamazaki	Fujitsu Laboratories Ltd	Numerical optimization of analytical measurement techniques to contribute to improvement of product engineering techniques
10:00AM - 10:30AM	Ohad Gur	IAI - Israel Aerospace Industries	modeFRONTIER Implementation Challenges and Benefits at IAI
10:30AM - 11:00AM	Kazuma Goto	Arup Japan	Optimizing complex structural forms in the field of architecture
11:00AM - 11:30AM			Coffee break
11:30AM - 11:50AM	Daniel Wäppling	ABB	Challenges in Industrial Automation and how Multi-disciplinary Design Optimization can help
11:50AM - 12:10PM	Tayeb Zeguer	Jaguar Land Rover	Multidisciplinary optimization and upfront simulation for a truly CAE driven design
12:10PM - 12:30PM	Bernardo Souza	DCTA/FUNDEP	Applications of modeFRONTIER in liquid propellant rocket engine design
12:30PM - 12:50PM	Giovanni Lombardi	University of Pisa	Optimization procedures as an Engineering tool: examples
12:50PM - 1:10PM	Danilo Di Stefano	ESTECO SpA	modeFRONTIER Roadmap
1:10PM - 2:30PM			Lunch break

🕐	**AUTOMOTIVE** ROUNDTABLE　　**[PLENARY ROOM]**	**INDUSTRIES [ENERGY]**		**[ROOM PARALLEL #1]**
2:30PM-2:50PM	The Automotive Roundtable will see managers and experts from the simulation departments of the top automotive companies discuss about the strategies to be put in place for a firm management of the increasing complexity.	Marco Manzan	University of Trieste	Optimization of external shading devices for energy efficient buildings
2:50PM-3:10PM		Paolo Tamburrano	Politecnico Bari	Fluid dynamic design optimization of an innovative high temperature gas to gas heat exchanger
3:10PM-3:30PM		Roberta Padovan	University of Trieste	Enhancing the efficiency of a Solar Domestic Hot Water (SDHW) system with modeFRONTIER
3:30PM-3:50PM	Yan Fu (Ford Motor Company) Carlo Poloni - Chairman (ESTECO SpA) Mikael Törmänen (Volvo Car Corporation) Tayeb Zeguer (Jaguar Land Rover)	Davide Laricchia	Politecnico Bari	Pressure drop reduction in cyclone separator for natural gas by means of design geometry optimization
3:50PM-4:10PM		Thomas Wolfanger	HYDAC Cooling GmbH	OPTIMHEX Project: developing an innovative methodology for Heat Exchangers (HE) design
4:10 PM - 4:50 PM	Coffee break	Introduction to INCOSE Italian Chapter		**[ROOM PARALLEL #2]**

	METHODOLOGIES **[OPTIMIZATION]**		[PLENARY ROOM]	METHODOLOGIES **[INTEGRATION]**		[ROOM PARALLEL #1]
4:50PM - 5:10 PM	Pascal Lafon	University of Technology of Troyes	Optimization of a sheet metal stamping process using modeFRONTIER sensitivity analysis tool for noise estimation	Simone Fratti	BMW	The use of optimization techniques in the BMW Diesel engines development with focus on the improvement of engine acoustic behaviour
5:10PM -5:30 PM	Valerio Ferrario	University of Trieste	modeFRONTIER application in biotechnology: unbiased guidelines for driving rational enzyme evolution	Zafer Tastan	Ford Europe	A new automated Underhood Thermal Management (UTM) CFD DoE workflow with modeFRONTIER
5:30PM -5:50 PM	Dominique Knittel	University of Strasbourg	Dynamics optimization of controlled mechatronic systems: comparison between time and frequency domain	Alessandro Fornero	SKF	Optimization applied to the bearing design of an automotive subsystem
5:50PM - 6:10PM	Giuliano Vernengo	MIT	Design by Optimization of Ship Hull Forms. New perspectives through full parametric modelling and multi-objective optimization	Ragnar Skoglund	EnginSoft Nordic	Material modelling at Volvo Cars: capturing set of stress-strain curves for efficient reuse
6:10PM -6:30 PM	Friedrich Froehlig	MTU Friedrichshafen	Setting an efficient workflow for automated Turbomachinery optimization	Eddi Valvason	VI-grade	Integration of modeFRONTIER and VI-grade software for efficient Multi-Objective Optimization in Multibody Systems design
From 7:30 PM	Guided tour and gala dinner at the Hydrodynamic Power Plant					

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EXPLORE NEW PERSPECTIVES

	ACADEMIC ROUNDTABLE [PLENARY]	INDUSTRIES [ELECTRIC] [ROOM PARALLEL #1]			INDUSTRIES [MANUFACTURING] [ROOM PARALLEL #2]		
9:00AM - 9:20AM	Enrico Nobile will chair the Academic Roundtable that will see professors from distinguished universities around the world discussing forefront optimization-related research projects and applications. Participants can contribute with their views on the challenges of these research activities and cast a light on the skills and knowledge that future designers must have. Dominique Knittel (University of Strasbourg) Enrico Nobile - Chairman (University of Trieste) Giovanni Lombardi (University of Pisa) Paolo Tamburrano (Politecnico Bari)	Seiji Nishita	IDAJ Co., Ltd.	Shape optimization case studies of magnetic circuit analysis integrated with JMAG	Dimitrios Drougkas	BETA CAE Systems S.A.	Composite Material Multi Objective Optimization Using Ansa, μeta and mode-FRONTIER
9:20AM - 9:40AM		Octavian Craciun	ABB AG	Hardware in the loop multi-objective optimization of medium voltage reclosers	Pasquale Franciosa	The University of Warwick	Understanding real world variations to optimize new generation welding processes
9:40AM - 10:00AM		Matteo De Martin	Nidec ASI	Numerical multi-objective optimization of an innovative totally enclosed fan cooled induction motor	Antonio Piccininni	Politecnico di Bari	Investigation about the warm deep drawing of Mg alloys using metamodels
10:00AM - 10:20AM		Davide Tallini	CST	Multiobjective Electromagnetic Optimization of RF components	Marcello Colledani	Politecnico di Milano	Multi-objective Optimization of Automotive Assembly Line Configurations

		INDUSTRIES [LOGISTICS] [ROOM PARALLEL #1]			INDUSTRIES [AEROSPACE] [ROOM PARALLEL #2]		
10:20AM -10:40AM		Alan Wisdish	Atkins	Optimizing the cost of flooding by using modeFRONTIER	Reino Ruusu	VTT Technical Research Centre of Finland	Modular Discrete Event Simulation of Aircraft Wing Manufacturing using collaborative technologies
10:40AM -11:00AM		Stephen Turner	EnginSoft UK Ltd	The Birmingham Canal Navigation Challenge	A "Travelling Salesman"-type Problem	Hezi Ben-Ari	Rafael Advanced Defense Systems	Using modeFRONTIER for more efficient development of autopilot algorithm
11:00AM -11:20AM	Claudio Bolzicco (illycaffè) illycaffè and ESTECO present design competition challenge	Enrique Ruiz Zúñiga	Högskolan i Skövde	Improved system design of an Emergency Department through simulation-based multiobjective optimization	Ohad Gur	IAI - Israel Aerospace Industries	modeFRONTIER as a Design Optimization Educational Tool
11:20AM -11:40AM	Coffee break						

KEYNOTE SESSION [PLENARY ROOM]

Time	Speaker	Company	Title
11:40AM - 12:00AM	Marc Halpern	Gartner	Optimization of Complex Systems: from a Resource Drain to an Advantage
12:00AM - 12:20PM	John Mannisto	Whirlpool Corporation	Driving Product Development with CAE and System Design at Whirlpool Corporation
12:20PM - 12:40PM	Matteo Nicolich	ESTECO SpA	ESTECO Enterprise Suite: Tackling Design Complexity with Collaborative Optimization
12:40PM - 1:00PM	Yan Fu	Ford Motor Company	Enterprise Multidisciplinary Design Optimization System Development and Application
1:00PM - 2:00PM			Lunch break

KEYNOTE SESSION [PLENARY ROOM] | BASIC TRAINING [ROOM PARALLEL #1] | ADVANCED TRAINING [ROOM PARALLEL #2]

Time	Speaker	Company	Title	BASIC TRAINING [ROOM PARALLEL #1]	ADVANCED TRAINING [ROOM PARALLEL #2]
2:00PM - 2:30PM	Andreas Winkler	Airbus Defense and Space	Aerodynamic optimization of an aircraft external fuel tank at Airbus Defence and Space		
2:30PM - 3:00PM	Ana Paula Cuco	Embraer	MDO: an Outstanding Methodology for Aircraft Design - a Wingtip Optimization		
3:00PM - 3:30PM	Alexander Orellano	Bombardier Transportation	Optimization in development phase of vehicles related to total cost of ownership	**TRAINING AGENDA** • Introduction to modeFRONTIER • modeFRONTIER workflow • Hands on example - How to create a process flow • Introduction to Optimization Strategies and Algorithms • Hands on example – Optimization run and post-processing tools • Introduction to Response Surfaces	**TRAINING AGENDA** • Introduction to new modeFRONTIER Release • Workflow Enhancements and New Parameter Chooser • Sub-process and Scheduling Project nodes: Usage and Application scenarios • New Run Analysis and File System • New RSM Wizard and RSM Validation • Algorithms Improvements • New MCDM • Reliability-based Optimization
3:30PM - 4:00PM	Yael Kaldor	Rafael	Design and optimization of RF Antennas using CST and modeFRONTIER, a comparison between traditional and additive manufacturing		
4:00PM - 4:30PM	Luka Onesti	ESTECO SpA	ESTECO R&D: fast forward 15 years		
4:30PM - 6:00PM					

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