

INTERNATIONAL CAE CONFERENCE 2014 - PROGRAM

First Day - 27 October

PLENARY SESSION

9.30	EnginSoft (S. Odorizzi) Welcome
9.45	The European Space Agency, ESTEC (C. Stavrinidis) Space Vehicle Development and Verification
10.05	CEMEF France (E. Massoni) New challenges in numerical simulation of forming processes: multi-scale and multiphysics approaches
10.25	ESRD Usa (B. Szabo) Simulation governance: An idea whose time has come
10.45	Coffee Break

METAL FORMING

11.15	European Commission (A. Varghese) EU Research for innovation and competitiveness in CAE and Simulation	Muraro (A. Sartori) External Piloting with FORGE for Ring Rolling Application
11.35	Aalto University (M. Gasik) The 5th Element - adding the life to CAE	Cerazit (A. Valsecchi - P. Fusi) Design and optimization of hard metal tools for cold metal forming processes
11.55	University of Tromsø – The Arctic University of Norway (K. Ruud) Engineering and computing in the Arctic: Challenges and opportunities	University of Padova, DII (A. Ghiotti) ALE mesh use in flowforming simulation: mesh and material model sensitivity analysis
12.15	DITECFER (L. Franzino) The value of Complexity	Transvalor (L. Pegie) Forge NxT, best practice and the main features

12.35 Business Lunch

Business Lunch

	Room Arifica	Room Riva	Room Bardolino	Room Rocca	Room Vela	Room Cisano	Room Aura	Room Lacisium
	TRANSPORTATION	ENERGY AND OIL&GAS	MATERIALS	CIVIL ENGINEERING	BIOMECHANICS & MEDICAL DEVICES	HPC	EXPLICIT DYNAMICS	METAL FORMING
14.30	Fiat Group Automobiles (F. Fortunato) Advanced modeling of liquid movements in automotive fuel tanks	ITER (C. Sborchia) Status of Design and Construction of the ITER Project	EnginSoft USA (A. Vlahinos) CAE Key to Successful Additive Layer Manufacturing	University of Parma - DICATeA (B. Bellelli) The PARC_CL model for FEM analyses of RC structures subjected to cyclic loads	CADFEM (Swisse) AG (D. Valtorta) Numerical simulation of a transcatheter aortic valve	European Commission (A. Varghese) European HPC Strategy and Implementation	EnginSoft (C. Martin) Rivet shape optimization using morphing techniques, modeFRONTIER and LS-DYNA in order to improve the riveting process	FOMAS Group (V. Vicario) Electroslag Remelting of large ingots: characterization of hot topping morphology and prediction of defects evolution during forging by finite elements simulation
14.50	Argonne National Laboratory (S. Pagerit) Complex System Engineering Simulation through Distributed Cosimulations	GE Nuovo Pignone (R. De Paolis) System Control logic enhancements through Fluid-Mechanical Valve dynamic's transfer functions	University of Strasbourg (D. Knittel) Analysis of web wrinkles in industrial Roll-to-Roll plants using finite element modeling	Proges Engineering (P. Imbrenda) Mast Foundation	Orobix (L. Antiga) Taking image-based intracranial aneurysm modeling into clinical settings	NVIDIA Corporation (B. Desam) GPU-acceleration of ANSYS Fluent CFD simulations for improved workflow in product development	Aviospace (G. Gambacciani) Simulation of automatic operations for space debris removal : Shot net	University of Bologna (B. Reggiani) Optimization of the extrusion process by means of a novel comprehensive approach
15.10	AVL List (D. Di Rocco) Modelling and Simulation of Vehicle Systems consisting of Angle-Resolved ICE and Driveline with Dual Mass Flywheel	Ansaldo Energia (R. Biondi) Sviluppo di una piattaforma per la progettazione e l'analisi FEM multifisica dei generatori di grossa taglia	Universidade Nova de Lisboa (A. Velinho) Modelling of transverse segregation on centrifugally-cast functionally graded composites	Angeleri (A. Angeleri) Static Analysis for a temporary tensile-structure designed for travelling shows	Complex Systems Group - Universidad Rey Juan Carlos Madrid (L. Inmaculada) Emergence and dynamics in complex networks of neurons	Eurotech (G. Mattiussi) HPC for engineering: challenges and opportunities	Indesit (F. Gambardella) CAE driven oven design for better product robustness and reliability	Hydromec (L. Fracasso - C. Contri) Tool JointsForging Optimization
15.30	MATFEM (H. Gese) Failure prediction of quenched boron steels	Casappa (M. Rigosi) Optimization of a low noise piston pump	CEMEF France (E. Massoni) Experimental and Numerical Simulation of Titanium Flow Forming	Ai Studio (G. Piccarreta) Structures Design with Innovative Design Tools	Gulhane Military Medical Academy (F. Yazar) Efforts on Medical Education Simulation Center Establishment; GMMMA Experience	EnginSoft (A. Marini) Cloud-based CFD turbomachinery simulation: the Fortissimo project	ITACAe (F. Valente) Blasting simulation using LS-DYNA for safer industrial equipments	Transvalor (L. Pegie) Forge NxT - Workbench, the status and the future
15.50	Engin @ Fire (F. Chiti) A CFD-FEM coupling methodology for fire damages analyses	University of Padua (B.A. Schrefler) Modelling of pressure induced fracture (fracking)	University Liverpool (D. Misseroni) Experimental and analytical insights on fracture trajectories in brittle materials with voids	University of Udine (D. Benasciutti) Seismic analysis of a liquid storage tank used in wine industry: a FEM-based approach	Gulhane Military Medical Academy (A. Korkmaz) Evaluation of the simulators used for pre/post graduate, emergency as well as other health education; what we would prefer, where to start?	IBM Italy (M. Briscolini) Technical Computing & Cloud: the IBM integrated solutions in CAE	BETA Cae (Appelgren) Automated extraction of Occupant Injury results	
16.10	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break

THEORY

16.30	Fiat Group Automobiles (G. Gotta) New Requirements for engine cooling system 1d modelling	ESSS – Engineering Simulation and Scientific Software (M. Reis) Near-Well & Oil Reservoir Simulation using ANSYS CFD	University of Malta (P. Mollicone) Finite Element Modelling of Foam-Filled Sandwich Panels Subjected to Quasi-Static Low-Velocity Impact	Di Sciascio (G. Di Sciascio) Use of pushover analysis for seismic retrofitting of a precast concrete warehouse	INFN (F. Gracagnolo) Structural analysis and multi-objective optimization of the Drift Chamber of Mu2e particles detector	University of Bergamo (S. Ravelli) Numerical and experimental study for the prediction of the steady, three dimensional flow in a turbine nozzle vane cascade using OpenFoam	Aviospace (G. Gambacciani) Analysis of a belts-based space mechanism during an orbital rendez-vous and capture operation	AFV Beltrame (M. Trevisan) Vantaggi concreti ottenibili con la simulazione del processo di laminazione
16.50	University of Padova (G. Meneghetti) Design and manufacturing of a single-seated car for the Formula SAE competition	Flow Design Bureau AS (M. Kjeldsen) Design optimization using LabVIEW and modeFRONTIER	University of Trento (L. Argani) Integration algorithms of elastoplasticity for ceramic powder compaction	Proges Engineering (A. Imbrenda) Trefolo University building	University of Padova (U. Galvanetto) Grid refinement in peridynamic computational applications	CINECA (R. Ponzini) Feeding VPP applications by means of RANS CFD data for modern hull hydrodynamics design on HPC platforms	EnginSoft (F. Rossetti - D. Blanco) Impact analysis on composite automotive component using LS-DYNA and ACP	Transvalor (L. Pegie) Roadmap
17.10	BETA CAE SYSTEMS S.A (A. Paraschoudis) Co-Simulation solutions for Sliding Door Slam test using the Kinetics tool of ANSA	AVL List (A. Colla) Structural analysis of wind turbine	ERAMET Research (B. Laboudigue) Modeling & Simulation in the metals industry	Studio Iorio (F. Iorio) Raft foundations with piles for settlement minimization: design optimization and case studies	University of Verona (M. Bonazzoli) High order edge elements for Maxwell's equations: construction and properties	Technische Universität Berlin (A. Heine) From the workstation into the cloud	EnginSoft (D. D'Agostino) Training/Live Demo: Stamping process simulation using LS-DYNA; easy analysis set-up with LS-PP	
17.30	Politecnico di Milano (M. Colledani) A new methodology for designing hybrid assembly lines including Remote Laser Welding (RLW) and Resistance Spot Welding (RSW) stations	German Aerospace Center (DLR) – Institute of Solar Research (N. Monnerie) Towards a Demonstration of a Solar Powered Hybrid Sulfur Cycle	TECHDYN Engineering (N. Bonora) Ductile crack initiation and growth in pipe welds using damage mechanics	Euro-Med Seismological Centre (R. Bossu) Harnessing the collective power of eyewitnesses for improved public earthquake information	EKON Modeling Software Systems (Espan) DKM - Dynamic Knowledge Management & Interoperability	SGI (T. De Varco) Leveraging SGI's UV(tm) and VizServer® Platform to Enable Multiple CAE Users to Run ANSYS Software with Remote Visualization in a Data Center	BETA Cae Live Demo: Using ANSA/mETA as Pre and Post-processors for LS-DYNA	
	University of Pisa (G. Lombardi) Analysis of a CFD Approach for the Study of the Aerodynamics of a Scooter				EnginSoft (G. Perna) Industrial trends in HPC Computation: what's new and what will be the future			

18.30 Poster Award

19.30 Evening program

	Room Anilica	Room Rocca	Room Cisano	Room Bardolino	Room Lacisium	Room Riva	Room Aura	Room Vela
	TRANSPORTATION	ENERGY AND OIL&GAS	AEROSPACE & DEFENSE	THEORY AND CASE HISTORIES	CIVIL ENGINEERING	FOUNDRY INDUSTRY	SYSTEM MODELING, SIMULATION AND CONTROL	ENABLING TECHNOLOGIES
9.30	Fiat Group Automobiles (A. A. Piovano) CFD optimization of ventilation ducts and panel outlets for a passenger vehicle	Franco Tosi Meccanica (N. Bachschmid) Use of 3D modeling for steam turbine casings design refinement	WASS (L. Corbinelli) FEM Simulation for Underwater Defence System Design. WASS experience.	University of Applied Sciences of Southern Switzerland (C. Zelioli) Fully Automatic Mesh Generation Strategy for CFD Simulations Integrated in an Optimisation Workflow	University UNION – Nikola Tesla, Belgrade (D. Mijuca) On new 3D FE methodology and verification in EOD Test		Istituto per le Applicazioni del Calcolo "Mauro Picone" (M. Ceseri) Sportello Matematico per l'Industria Italiana: fostering connections between Industry and Mathematics	EnginSoft-ESTECO (F. Franchini) modeFRONTIER 2014: Extend your capability of optimization!
9.50	Piaggio (R. Testi) CAE simulation of a dual characteristic CVT driving device	Landi Renzo (F. Ciardiello) An integrated approach for mono-dimensional acoustic analysis and optimization of CNG Compressor line	AIRBUS Operations SAS (J. Lasvenes) Mytest: the airbus solution for major structural test measurements	ILAPAK (N. Baldecchi) Constrained Layer damping design for a packaging machine	Politecnico di Milano (E. Lai) Numerical modelling of a suspension footbridge		Flow Design Bureau AS (M. Kjeldsen) Managing large data quantities using LabVIEW	
10.10	Centro Ricerche FIAT (E. Ribaldone) Applications of optimization during the aerodynamic development of new vehicles	SIMIC (M. Bolla) High technologies development for nuclear fusion components manufacturing	ONERA - The French Aerospace Lab (E. Deletombe) Numerical optimization of composite fuel tanks subject to hydrodynamic loads	ELICA (G. Buonomo) CFD-Driven design of a ventilation system for kitchen hoods	MZA Structural Engineering (E. Trolese) The steel-membrane tensile system used for the new university campus Luigi Einaudi in Turin	EnginSoft "MAGMA 5.3 Presentation"	Poznan University of Technology (P. Fuc) Scilab implementation of inverse kinematics and inverse dynamics algorithms of a Gough-Stewart platform	Key To Metals (V. Pocañil) New Developments in a Database of Advanced Material Properties for CAE Usage
10.30	DAYCO Europe (M. Pasta) DRIVELINE for Automotive Applications Vibration Analysis	Edison (A. Zuffetti) FSO replacement in the rospo oil field, Italy	Umbra Group (S. Toro) Design Optimization of an Electro Mechanical Actuator: what are the suitable algorithms to solve this complex constrained problem of optimization?	Indesit (V. Colozzo) Modelling of a pyrolytic oven using a mix of 3D and 2D virtual analysis methods	University of Naples "Federico II" (A. Gesualdo) Nonlinear Analysis and Retrofitting of Historical Arch Bridges		Università di Padova (D. Poggiali) Segmentation of lesions in Multiple Sclerosis: a multithresholding approach	Sigmatix (C. Wilkes) Expanding Tolerance Analysis for a Robust Design
10.50	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11.00	Autodesk (D. Cooper) The Role of Advanced Materials in Lightweighting	Ansaldo Nucleare (F. Magugliani) Modelling flow blockage in the lead fast reactor ALFRED (Advanced Lead Fast Reactor European Demonstrator) fuel assembly	CST Italy (E. Leroux) EMC Simulation for Electronic Device Design	VIBRATEC (C. Clerc) An auto-balancer device for high spinning speed (LoWash project)	Gruppo Industriale Tosoni (S. Masala) On the seismic response of the Steel-Glass systems located at the top of the tour Odeon (Principality of Monaco)		Scilab Enterprises (C. Gomez) Scilab for Numerical Computation and Industrial Applications	Newmerical Technologies International (P. Lagacé) Optigrd: from qualitative to quantitative CFD
11.20	University of Modena (V. Rotondella) Crash target integration during the design and optimization process of a high performance car chassis	GE Nuovo Pignone (S. Rossini) An efficient methodology to extract rotating machines supporting structure dynamic stiffness for enhanced rotor dynamic assessment	MBDA IT (S. Gubbioni) The methodology based on hydro-FEM simulations (LS-DYNA) to deliver requirements and to design trials for Missile's equipment that must survive to the shock of impact on threat	ENDIF-University of Ferrara (A. Vaccari) CFD Analysis of a Rotary Bread-Backing Oven	University of Salento (C. Baglivo) Multi-criteria optimization analysis for selection of ECO-friendly materials according to Itaca protocol for zero energy buildings in the Mediterranean climate		Johnson Electric Asti (G. Milanese) Automotive axial flow fans: design and optimization	SACMI Imola (R. Cenni) ANSYS Mechanical customization through ACT extensions. Some useful tools to improve and speed up the user everyday activities and ANSYS Mechanical features
11.40	CYBERNET SYSTEMS CO.,LTD. (Y. Furuta) The comprehensive analysis for RTM process of CFRP by ANSYS Workbench	German Aerospace Center (DLR) – Institute of Solar Research (S. Tescar) Design and installation of a thermochemical heat storage prototype in an existing solar facility	PLM Systems (R. Cravero) Product Lifecycle Management opportunity for enabling CAE & CAT collaboration	Bonfiglioli Mechatronic Research (F. Conci) High efficiency, low backlash planetary speed reducer gearbox optimisation by means of a multidisciplinary numerical approach	Modutech (A. Cariani) Modeling and engineering a conditioning terminal: a CFD approach to thermal comfort in houses	EnginSoft "MAGMA 5.3 Presentation"	ODIUT Automex sp. z o.o. (L. Borawski) Design and Scilab implementation of a motion cueing algorithm for a 6 degrees of freedom driving simulator	CADFEM (Swisse) AG (D. Vallorta) Automated Bolt Design and Verification in ANSYS Workbench
12.00	RBF Morph (M. Biancolini) How to boost Fluent Adjoint Solver using RBF Morph mesh morphing	EMBaffle B.V. (F. Perrone) Grid geometry effects on pressure drops & heat transfer in an EMBaffle heat exchanger	Consorzio CETMA (R. Dotoli) Fabric impact drop tests: numerical simulations using the LS-Dyna micro-mechanical approach and experimental characterization	Ingersoll Rand (G. Meeuwssen) Structural analysis of microchannel condenser heat exchangers using finite element techniques	Studio Iorio (F. Iorio) Timber space domes for EXPO 2015: nonlinear analysis and design		Electrhme Engineering (M. Santoni) Scilab Modelling and Simulation of Industrial Oven Control for Metal Hardening	ESSS (M. Reiss) ROCKY – Next Generation DEM Particle Simulator
12.30	Business Lunch							
14.00	University of Modena (G. Miscia) Design of an innovative front hood through simplified FEA models for pedestrian protection	GE Nuovo Pignone (A. Tradii) Experimental validation of Steam Turbine control oil actuation systems transient behaviour	Compositi Avanzati (R. Aciermo) The role of new production technologies and CAE in the evolution of Aerospace industry	Politecnico di Torino (T. Mohtar) Multicriteria optimisation of the position controller in a numerical controlled machine axis		Politecnico di Bari (V. Pigionico) Prediction of casting quality adopting an optimized inverse analysis for the interface heat transfer coefficients evaluation	University of Luxembourg (M. Foued) Scilab Modelling and Simulation of Communication Networks	RBF Morph (M. Biancolini) RBF mesh morphing ACT extension for ANSYS Mechanical
14.20	Politecnico di Torino (A. Serra) Automated optimization of vehicle external aerodynamics aimed at drag reduction	Studio Tecnico ing. Donà Susanna (S. Donà) VEGA Field Single Point Mooring Requalification	D'Appolonia (E. Costa) RBF-based aerodynamic optimization of an industrial glider	MOXOFF Politecnico Milano (P. Ferrandi) A New Numerical Simulation Software for Charge Transport in Organic Light Emitting Transistors		Politecnico di Bari (A. Piccinini) Numerical simulation of the cooling phase of a sand casting for the evaluation of residual stresses	Università di Padova (N. Spiezia) FEM analysis of non linear coupled geomechanical problems with Scilab	EnginSoft (G. Borzi) The NAFEMS Professional Simulation Engineer Competency Tracker - a tool to assess, record and manage competencies in Computer Aided Engineering and numerical simulation
14.40	Engineering Center Steyr GmbH & Co KG (O. Grieshofer) Dynamic Testing of a Car Body on a Virtual Test Rig	Università di Genova (C. Cravero) CFD simulation of regenerative chambers in glass industry to support the design process for thermal efficiency improvement	Università di Padova (N. Coccon) A reliability-based multidisciplinary approach for the design optimization of very flexible wings	University of Padova (A. D. Capobianco) Efficient modelling of graphene-based photonic devices		Avio Aero (D. Spaccasassi) Aerospace Castings Simulation	EnginSoft (M. Venturin) The ORC (Organic Rankine Cycle) simulator	Granta Design (S. Ozbek) Materials Gateway for ANSYS Workbench – Ensuring CAE builds on enterprise materials knowledge
15.00	University of Udine (L. Moro) Fire doors for naval applications: numerical analysis and innovative solutions	Ecole Polytechnique Fédérale de Lausanne (K. Bhat) ECO evaluation for remote laser welding	EnginSoft Germany (E. Cipoloto) CFD applied to In-Flight Ice Accretion Simulation and design of Ice Protection Systems	University of Padova (R. Tosato) Conventional and condensing gas fired boilers		Fondinox (M. Fusarpoli) Thermal analysis of a step-like test block in superduplex material subjected to a solution annealing heat treatment and water quenched	EnginSoft (A. Bassi) Medical staff scheduling: do it with Scilab!	EnginSoft (A. Taurisano) Vibration fatigue analysis on a motorbike frame by nCode
15.20	Fondazione Bruno Kessler (E. Serra) Satisfying standards by virtual prototyping: a case study of a Crash Hardened Memory Module for high speed trains	Joint Research Centre - European Commission (G. Mercurio) Uranium Enrichment Cascades Modeling with Optimized Stage-MixingParameters for Non Proliferation Analysis	GKN Aerospace (N. Muhammed) An Efficient and Accurate Method of Modeling Riveted Joints in Aeroengines	EnginSoft (G. Falcitelli) Automatic setup of thermal and thermoelectric Link Elements in Ansys Workbench via Ansys Application Customization Toolkit (ACT)		Lucchini RS (M. Treacchi) Residual stress of railway wheels – A predictive method	B2B: Scilab Enterprises / Openeering meetings with interested companies	Prometech Software (S. Tokura) Application of Particle Method MPS-Based CFD Software Particleworks® for Product Design
15.40	University of Warwick (P. Franciosa) Design Synthesis of Robotic Remote Laser Welding Assembly System with Compliant Non-Ideal Parts	CA Technologies (G. Angelini) Governance of R&D projects for new fuels and lube oils	Aviointeriors (G. Monaco) Aircraft Seat Engineering & Certification - Pressure Measurements and Comfort of a Cushion	University of Ferrara (A. Cristofani) An innovative approach for CAE based analysis of complex fatigue loadings		Tecnopress (L. Bracchi) Design optimization to produce an automotive component with HPDC process		DYNAMORE Italia (S. Scalera) Failure prediction in Automotive Applications using LS-DYNA
16.00	Olsa (A. Menotti) CFD analysis of fogging/defogging automotive lighting systems using Multicomponent Gas and Liquid Film Models	NTB, Institute for Computational Engineering (Martin Bünner) Optimization & Automatic Design of Fluid-Dynamical Systems: Towards Optimal Shapes for Wind Turbine Blades	GKN Aerospace (J. Ramalah) Simulation of Residual Stress in Welding and its Influence on External Loads in a Structure	Independent self employed engineer (F. Martin) Semiconductor nanocrystal coating for enhanced light sources		EnginSoft: Weight and Process Production Optimization for an Iron casting through the integrated approach of virtual simulation - Design Chain		GOM Italia (G. Graziosi) Validazione dei sistemi di simulazione DIC
16.20		TECHDYN Engineering (A. Ruggiero) Failure analysis of pipe fitting hydro-burst test		Dhitech (G. Bernabei) CAD/CAE-based environment for Virtual Design Review				CA Technologies (G. Angelini) Technology in support of innovation projects