

2012 3DS SIMULIA Community Conference

Tuesday, May 15

	<i>BALLROOM/ROOM 556</i>	<i>ROOM 555</i>
7:00	Registration	
8:00	Opening Remarks: David Barnes, General Manager Americas, 3DS SIMULIA	
8:05	Invited Lecture: Jim O'Sullivan, Senior Vice President, Technip	
8:50	3DS SIMULIA Business Outlook: Scott Berkey, Chief Executive Officer, 3DS SIMULIA	
9:00	Dassault Systèmes Opens New Horizons with 3D Experience: Bernard Charlès, President & Chief Executive Officer, Dassault Systèmes	
9:30	BREAK & PARTNER EXHIBITION	
	1A: TRANSPORTATION & MOBILITY <i>Chair: Marc Schrank</i>	1B: AEROSPACE <i>Chair: Zhen-zhong Du</i>
10:00	<i>Experimental Correlation of an n-Dimensional Load Transducer Augmented by Finite Element Analysis</i> Tim Hunter, Wolf Star Technologies	<i>Development of Benchmark Examples for Quasi-static Delamination Propagation and Fatigue Growth Predictions</i> Ronald Krueger, National Institute of Aerospace
10:30	<i>Finite Element Modeling of Railroad Track Components</i> Hailing Yu, Volpe National Transportation Systems Center	<i>A 3D Discrete Damage Modeling Methodology for Abaqus for Fatigue Damage Evaluation in Bolted Composite Joints</i> Eugene Fang, Global Engineering and Materials, Inc.
11:00	Special Interest Groups (See page 3)	
11:50	LUNCH & PARTNER EXHIBITION	
	CS1A: COMPLEMENTARY SOLUTIONS <i>Chair: Albert Kurkchubasche</i>	CS1B: COMPLEMENTARY SOLUTIONS <i>Chair: Dennis Corain</i>
12:50	<i>STAR-CCM+/Abaqus Co-simulation: Meeting the Challenges of FSI</i> Brian Donning, CD-adapco	<i>Fracture Mechanics and 3D Crack Mesh Analysis Software</i> Greg Thorwald, Quest Integrity Group
1:20	<i>MpCCI—Multiphysics and Multiscale Software Solutions</i> Klaus Wolf, Fraunhofer Institute SCAI	<i>New Developments in Fatigue Analysis from FEA</i> John Draper, Safe Technology
	2A: TRANSPORTATION & MOBILITY <i>Chair: Harish Surendranath</i>	2B: AEROSPACE <i>Chair: Kyle Indermuhle</i>
1:50	<i>Integrated Simulation Data and Process Management System for Virtual Tire Development Using 3DS SIMULIA SLM</i> Young-soo Yoon, Hankook Tire	<i>Integrated Tool for Strain Extraction in Virtual Testing</i> Ravi Udali, Infosys Limited
2:20	<i>Traction Prediction of a Smooth Rigid Wheel in Soil Using Coupled Eulerian-lagrangian Analysis</i> Anoop Varghese, Bridgestone Americas Tire Operations	<i>Lamb Wave Propagation Simulation in Smart Composite Structures</i> Dulip Samaratunga, Clarkson University
2:45	BREAK & PARTNER EXHIBITION	
	3A: TRANSPORTATION & MOBILITY <i>Chair: Brad Heers</i>	3B: AEROSPACE <i>Chair: Vladimir Sokolinsky</i>
3:15	<i>Analysis of High Cycle Fatigue Cracks in Welds of Large Diesel Engines</i> Tore Lucht, MAN Diesel & Turbo	<i>Development of Realistic Simulation Techniques to Predict Cure-induced Microcracking in 3D Woven Composites</i> Harun Bayraktar, Albany Engineered Composites, Inc.
3:45	<i>3D Thermal Analysis of Li-ion Battery Cells with Various Geometries and Cooling Conditions Using Abaqus</i> Kim Yeow, AVL Powertrain Engineering	<i>Multiscale Approach to Damage Analysis of Laminated Composite Structures</i> Ivica Smojver, University of Zagreb
4:15	<i>Static and Dynamic Simulations for Automotive Interior Components Using Abaqus</i> Mauro Olivero, Fiat Research Centre	<i>Effects of Subscale Size and Shape on Global Energy Dissipation in a Multiscale Model of a Fiber-reinforced Composite Exhibiting Post-peak Strain Softening Using Abaqus and FEAMAC</i> Evan Pineda, NASA Glenn Research Center
4:50	GENERAL LECTURE 1: Multiphysics in Abaqus 6.12: Discover New Simulation Possibilities Eric Weybrant, Product Manager, Abaqus Analysis Products, 3DS SIMULIA Dhiraj Nahar, Product Manager, Interactive Simulation Apps, 3DS SIMULIA	
5:35	PARTNER RECEPTION	
7:00	RECEPTION CONCLUDES	

ROOM 553

ROOM 552

ROOM 551

1C: DEFENSE

Chair:
Jon Arata

Fatigue Damage Analysis of an Elastomeric Tank Track Component
William Mars, Endurica, LLC

Modeling Radiation Transport Using MCNP6 and Abaqus/CAE
Chelsea D'Angelo, Los Alamos National Laboratory

1D: LIFE SCIENCES

Chair:
Subham Sett

Stepwise Validated Finite Element Model of the Human Lumbar Spine
Dana Coombs, Synthes

Evaluate Medical Device Design Robustness by Combining Statistical and Probabilistic Tools with Finite Element Analysis
Atul Gupta, Medtronic

1E: ENERGY

Chair:
Harry Harkness

Stress Analysis and Model Analysis of the Largest Bearing Test Rig in the World—Astraios
Martin Stief, Schaeffler Technologies GmbH & Co. KG

An Innovative Gear Tooth Analysis and Evaluation Technique
Masahiro Matsubayashi, Nabtesco Corporation

CS1C: COMPLEMENTARY SOLUTIONS

Chair:
Matt Dunbar

GPU Computing with Abaqus 6.12
Srinivas Kodiyalam, NVIDIA

Solving the Cluster Software Challenge with Platform HPC
Selam Kapetanovic, Platform Computing

CS1D: COMPLEMENTARY SOLUTIONS

Chair:
Murali Annareddy

ANSA & µETA—Latest Solutions for Pre- & Postprocessing for Abaqus
Yiannis Asaniotis, BETA CAE Systems, SA

Getting More from Abaqus by Tackling Noisy and Challenging Data
Ted Diehl, Bodie Technology, Inc.

2C: CIVIL ENGINEERING

Chair:
Kunming Mao

Modeling of Dock Door Bracings for Hurricane Winds
Artemis Agelariadou-Twohig, FM Global

Fluid-structure Interaction in Civil Engineering Structures
Javier Rodríguez, Principia

2D: LIFE SCIENCES

Chair:
Cheryl Liu

FEA Simulation of the Heart
Hengchu Cao, Edwards Lifesciences, LLC

Parameterization and Optimization of Balloon Expandable Stent
Karthik Shankaran, Detroit Engineered Products, Inc.

2E: FRACTURE & FAILURE

Chair:
Lin Xia

Structural Mechanics of Steam Turbines: Facing Challenges in FE-postprocessing with STARpost
Benjamin Kloss-Grote, Siemens Energy

Computational Study of Cortical Bone Screw Pullout Using the eXtended Finite Element Method (XFEM)
Emer Feerick, National University of Ireland

3C: MANUFACTURING

Chair:
Jack Cofer

Advanced FEA Compaction Model Using CEL Method
Liqun Chi, Caterpillar, Inc.

A Numerical Study of Abrasive Wear in Tillage Tools Due to Soil-tool Interaction
Gaurav Goel, UNC at Charlotte

Bushing Connector Application in Suspension Modeling
Mukund Rao, John Deere Turf and Utility Platform

3D: ISIGHT APPLICATIONS

Chair:
Jeff Bond

Correlation of the Vibroacoustic Response of Structural Panels with Isight for Use in Statistical Energy Analysis in Aerospace Applications
Cory Rupp, ATA Engineering, Inc.

Using Isight Simulation Automation Tools to Reduce the Cycle Time for Ship Structural Analysis Processes
Sean Murphy, Huntington Ingalls Incorporated

Structural Design Optimization of the SAR Plate Assembly through Genetic Algorithm
Claudio Cavallero, Exemplar on behalf of AgustaWestland

3E: ENERGY

Chair:
Mahesh Kailasam

Automation of Static and Dynamic FEA Analysis of Bottomhole Assemblies
Nader Abedrabbo, Weatherford

Thermal Expansion & Helical Buckling of Pipe-in-Pipe Flowline Systems
Brian Duffy, Genesis

Finite Element Analysis in Offshore Geotechnics—A Thirty-year Retrospective
Jack Templeton, SAGE USA

View the conference proceedings
on your smart phone here:



Wednesday, May 16

2012 3DS SIMULIA Community Conference

	<i>BALLROOM/ROOM 556</i>	<i>ROOM 555</i>
7:00	Registration	
8:00	Opening Remarks: Dimple Shah, General Manager Asia Pacific, 3DS SIMULIA	
8:05	3DS SIMULIA Brand Update: Ken Short, Vice President, Strategy & Marketing, 3DS SIMULIA	
8:25	Invited Lecture: Anthony B. Ferguson, Lead Engineering Specialist, 3M	
	4A: TRANSPORTATION & MOBILITY <i>Chair: Yangwook Choi</i>	4B: MANUFACTURING <i>Chair: Jack Cofer</i>
9:20	<i>Development of Stiffness Analysis Program for Automotive Wheel Bearing</i> Seungpyo Lee, ILJIN Global	<i>TMF Lite Process Development</i> Qingzhong Li, Caterpillar, Inc.
9:50	<i>A Study on the Lateral Stiffness of the Passenger Car Suspension</i> Moonho Yang, Hyundai Motor Company	<i>Finite Element Analysis of Rubber Treads on Tracks to Simulate Wear Development</i> Sergio Arias, Camoplast Solideal
10:15	BREAK & PARTNER EXHIBITION	
	5A: TRANSPORTATION & MOBILITY <i>Chair: Brad Heers</i>	5B: TOPOLOGY OPTIMIZATION <i>Chair: Richard Stevenon</i>
10:45	<i>Snow Load Simulation Correlation of the Light Commercial Vehicles</i> Halil Bilal, Tofaş	<i>Topology Optimization of Nacelle Components with ATOM</i> Ahmet Becene, Goodrich
11:15	<i>Road Restraint Systems in Abaqus</i> Jordi Viñas, IDIADA Automotive Technology	<i>Structural Topology Optimization of Multilink Suspension System Using ATOM</i> Sung-Ling Twu, General Motors
11:50	GENERAL LECTURE 2: Explore Abaqus 6.12 as an Integral Part of an Industry Workflow Eric Weybrant, Product Manager, Abaqus Analysis Products, 3DS SIMULIA Asif Khan, Product Manager, Interactive Simulation Apps., 3DS SIMULIA Dhiraj Nahar, Product Manager, Interactive Simulation Apps., 3DS SIMULIA <i>Chair: Mike Snyman</i>	
12:35	LUNCH & PARTNER EXHIBITION	
	CS2A: COMPLEMENTARY SOLUTIONS <i>Chair: Karl D'Souza</i>	CS2B: COMPLEMENTARY SOLUTIONS <i>Chair: Subham Sett</i>
1:35	<i>JMAG: Simulation Technologies for Electromechanical Design</i> Takashi Yamada, JSOL Corporation	<i>Creating Physiological Boundary Condition for FEA for Activities of Daily Living</i> Arne Kiis, Anybody Technology A/S
2:05	<i>Delivering Performance and Productivity for Abaqus at Any Scale</i> Jean-Luc Assor, Hewlett Packard	<i>Using FE Simulations to Optimize Implant and Medical Device Design</i> Todd Pietila, Materialise
	6A: CONSUMER <i>Chair: David Cadge</i>	6B: COMPOSITES <i>Chair: Juan Hurtado</i>
2:35	<i>Is It Possible to Open Beverage Packages Virtually?</i> Eskil Andreasson, Tetra Pak Packaging Solutions AB	<i>Damage Tolerance Analysis of Repaired Composite Structures: Engineering Approach and Computational Implementation</i> Mark Gurvich, United Technologies Research Center
3:05	<i>Realistic Simulation of Golf Ball Impact</i> Xiaohu Liu, Veryst Engineering, LLC	<i>Failure Modeling in Thermoplastic Butt-joint Stiffened Panels by Quasi-static Loading</i> Kirill Ilin, University of Twente
3:30	BREAK & PARTNER EXHIBITION	
4:00	GENERAL LECTURE 3: 3DS SIMULIA V6 R2013 – A New Way to Do Collaborative Simulation Fabien Letailleur, Technical Marketing Specialist, 3DS SIMULIA Jon Wining, Product Manager, Configured Simulation Apps., 3DS SIMULIA Ken Short, VP of Strategy & Marketing, 3DS SIMULIA <i>Chair: KC Jen</i>	
4:45	SESSIONS CONCLUDE	

Group Photo and Banquet Information

- 5:30 Board Busses to Banquet in Front of RICC
- 7:00 Group Photo
- 7:30 Dinner
- 10:30 Return to Providence

ROOM 553		ROOM 552		ROOM 551	
4C: TURBOMACHINERY <i>Isight Applications</i>		4D: LIFE SCIENCES		4E: ENERGY	
Chair: Youngwon Hahn		Chair: Subham Sett		Chair: Chris Wohlever	
Thrust Collar Bearing Design Optimization Using Isight Alexander Böhmer, ABB Turbo Systems AG		Mesh Human Phantoms with MCNP Casey Anderson, Los Alamos National Laboratory		Accelerating the Development of Expandable Liner Hanger Systems Using Abaqus Ganesh Nanaware, Baker Hughes	
Multi-disciplinary and Multi-point Design Optimization of a Centrifugal Compressor Impeller Mehrdad Zangeneh, Advanced Design Technology, Ltd.		Finite Element Analysis of Head Impacts in Contact Sports Mark Gutttag, Brown University		Modeling Component Assembly of a Bearing Using Abaqus Michael Guillot, Stress Engineering Services, Inc.	
5C: ISIGHT APPLICATIONS		5D: COMPOSITES		5E: ENERGY	
Chair: Patrick Koch		Chair: Kyle Indermuehle		Chair: Dale Berry	
Automated Industrial PTFE Billet Sintering Profile Optimization Hansong Huang, Saint-Gobain Northboro R&D Center		Numerical Analyses of Low Velocity Impacts on Composite Advanced Modeling Techniques Giovanni Perillo, Norwegian University of Science and Technology		Approaches to Account Energy Losses in Various Parts of "Soil-structure" Systems in Dynamic Analysis of Civil Structures of NPP Vladimir Korotkov, JSC "ATOMENERGOPROEKT"	
Optimization and Flowchart Control in the Industry Process Using Abaqus, CATIA, Moldflow with Isight Integration Rubén Guardia, SMARTTECH Sudamerica SRL		Using Abaqus/Explicit to Link the Manufacturing Process to the Final Part Quality for Continuous Fiber-reinforced Composite Fabrics Konstantine Fetfatsidis, University of Massachusetts at Lowell		Pipeline Dynamics with Flowing Contents in Abaqus/Standard Barry Trippit, Simuserv Pty., Ltd.	
CS2C: COMPLEMENTARY SOLUTIONS		CS2D: COMPLEMENTARY SOLUTIONS			
Chair: Paul Lalor		Chair: Chris Wohlever			
New Solutions for Fatigue of Composite Materials Jeff Mentley, HBM-nCode		A Survey of Features in Z-mat: Cast Iron, Polymer Plasticity, Multi-materials, and UELs Ronald Foerch, Northwest Numerics, Inc.			
An Introduction to TruProducts—Integrated Optimization Tools for Abaqus Martin Gambling, GRM Consulting, Ltd.		Design & Manufacture Innovative Composites Products with DIGIMAT Roger Assaker, e-Xstream engineering, SA			
6C: CIVIL ENGINEERING		6D: METHODS AND MATERIALS		6E: ENERGY	
Chair: Deepak Datye		Chair: Sekar Govindarajan		Chair: Mahesh Kailasam	
Experimental Verification of Automated Design of Reinforced Concrete Deep Beams S. M. Shahidul Islam, UNSW at the Australian Defence Force Academy		Using Advanced Energy Methods to Enhance FEA and Experiments Ted Diehl, Bodie Technology, Inc.		GPU Computing with Abaqus 6.11 and Its Application in Oil & Gas Industry Goang-Ding Shyu, Baker Hughes	
Incremental Finite Element Model for Component Interaction Investigation of a Full-depth Deck Panel System Cem Mansiz, Western Michigan University		Modeling the Constitutive Response of Metals Under Complex Loading Alper Ucak, The Catholic University of America		Finite Element Analysis for Structural Performance of Offshore Platforms Jueren Xie, C-FER Technologies	



Thursday, May 17

2012 3DS SIMULIA Community Conference

	BALLROOM/ROOM 556	ROOM 555
8:00	Opening Remarks: Frans Peeters, General Manager EMEA, 3DS SIMULIA	
8:15	GENERAL LECTURE 4: <i>Accelerating Realistic Simulation with Advances in High-Performance Computing</i> Matt Dunbar, Chief Architect, 3DS SIMULIA	
	7A: TRANSPORTATION & MOBILITY <i>Isight Applications</i>	7B: AEROSPACE
	Chair: Brett Wujek	Chair: Brad Maker
9:05	CAE-based Optimization Methodology for Stamping Process of Deep Drawing Automotive Component Kedar Walvekar, 3DPLM Software Solution, Ltd.	Fluid-structure Interaction Simulations of Rocket Engine Side Loads Eric Blades, ATA Engineering
9:35	Parametric Optimization of an Exhaust Manifold Using Isight, STAR-CCM+ and CATIA V5 Joel Davison, CD-adapco	A Fundamental Study of the Flow Past a Circular Cylinder Using Abaqus/CFD Masami Sato, Mechanical Design & Analysis Corporation
10:05		Nonlinear Response of a Skin Panel Under Combined Thermal and Structural Loading Amit Shukla, Miami University
10:30	BREAK	
	8A: MATERIALS	8B: CIVIL ENGINEERING
	Chair: Juan Hurtado	Chair: Kunming Mao
10:50	Accurate Finite Element Simulations of PTFE Components Jörgen Bergström, Veryst Engineering, LLC	Hydrodynamic Pressure on Culvert Gates during an Earthquake Ali Rasekh, Tetra Tech
11:20	3D Finite Element Analysis of Instrumented Indentation of Transversely Isotropic Materials Talapady Bhat, Stony Brook University	Numerical Model of the Structural Behavior of Energy Dissipators, Based on Buckling Restrained Braces Juan Carlos Castro Medina, Universidad Politécnica de Cataluña
11:50	GENERAL LECTURE 5: <i>Expanding our Ecosystem and Technology for Advanced Composites</i> Kyle Indermuehle, Technical Lead, Aerospace, 3DS SIMULIA John Klintworth, 3DS CATIA Composites, 3DS CATIA	
	Chair: Dale Berry	
12:35	OPEN FORUM	
1:05	CLOSING REMARKS: Scott Berkey, Chief Executive Officer, 3DS SIMULIA	
1:15	LUNCH	
2:00	CONFERENCE CONCLUDES	



2008



2009

ROOM 553

7C: GEOMECHANICS

Chair:
Mahesh Kailasam

High-performance Abaqus Simulations in Soil Mechanics Reloaded—Chances and Frontiers
Torben Pichler, Hamburg University of Technology

Plugin for Tunneling and Geotechnical Analysis in Abaqus
Anselmo Fioranelli, SMARTTECH

ROOM 552

7D: DEFENSE

Chair:
Jon Arata

The Dynamic Response and Evaluation of a Flare Storage Container during Propellant Slow Cook-off Using Abaqus/Explicit CEL
Pasquale Carlucci, U.S. Army—ARDEC

Analysis of Fatigue Life Estimate for the M119 Cradle Assembly with a Gouge Cut Defect
Caitlin Weaver, U.S. Army—ARDEC

Simulating Underbelly Blast Events Using Abaqus/Explicit CEL
Jonathan Jablonski, U.S. Army—ARDEC

ROOM 551

7E: FSI & MULTIPHYSICS

Chair:
Karl D'Souza

Dynamics of a Completion String in a Fluid-filled Wellbore
Allan Zhong, Halliburton Company

Numerical Simulation of Fluid-structure Interaction in the Design Process for a New Axial Hydraulic Pump
Bettina Landvogt, Fraunhofer SCAI

Applications for MBS-FEM-coupling with MpCCI Using Automotive Simulation as an Example
Ilya Kalmykov, Fraunhofer SCAI

8C: MATERIALS

Chair:
Dale Berry

Using Abaqus to Model Delamination in Fiber-reinforced Composite Materials
James Sherwood, University of Massachusetts at Lowell

8D: ENERGY

Chair:
Jack Cofer

Structural Optimization of a Transversal Rolling Mill Component to Improve Flexional Stiffness
Carlo Bergamelli, TenarisDalmine S.p.A.

Using the Failure Assessment Diagram Method with Fatigue Crack Growth to Determine Leak-before-Rupture
Chris Tipple, Quest Integrity Group



2010



2011