

NAFEMS NA 2008 Regional Summit, Hampton, Virginia

| Keynote                   | PLASVEE <sup>©</sup> Project |  |
|---------------------------|------------------------------|--|
| Track 1 - Ballroom B      | Vendor Forum                 |  |
| Track 2 - Ballroom C      | Breaks/Lunches               |  |
| Track 3 - Rooms 202 & 203 | Special Activities           |  |

## Agenda

| Monday, October 27, 2008 |  |  |  |
|--------------------------|--|--|--|
| 8:00 am - 5:00 pm        | Training Course: Finite Element Model Validation, Updating, and Uncertainty Quantification<br>for Linear and Non-linear Models for Aerospace, Civil and Mechanical Engineers ( <i>optional</i> ) <sup>1</sup><br>F. Hemez, Los Alamos National Laboratory (LANL) |  |  |
|                          |  |  |  |

| Tuesday, October 28, 2008 |  |  |  |
|---------------------------|--|--|--|
| 8:00 am - 5:00 pm         | Training Course: Finite Element Model Validation, Updating, and Uncertainty Quantification<br>for Linear and Non-linear Models for Aerospace, Civil and Mechanical Engineers ( <i>optional</i> ) <sup>1</sup><br>F. Hemez, Los Alamos National Laboratory (LANL) |  |  |
| 1:00 pm - 6:00 pm         | Registration   |  |  |

## <sup>1</sup> This is an optional training course which requires separate registration.

| Wednesday, October 29, 2008 |  |   |   |   |
|-----------------------------|--|---|---|---|
| 7:00 am - 4:00 pm           | Registration   |   |   |   |
| 7:15 am - 8:00 am           | -  |   | Light Breakfast   |   |
| 8:00 am - 8:10 am           |  | Opening of the Conference<br>T. Morris, NAFEMS CEO  |   |   |
| 8:15 am - 8:25 am           |  | Welcome to NAFEMS 2020<br>R. Dreisbach, The Boeing Company and Chairman of NAFEMS NA Steering Committee   |   | NA Steering Committee   |
| 8:30 am - 9:15 am           |  | Keynote Speaker: Pathway to Future CAE Technologies and Their Role in Ambient Intel<br>A. Noor, Old Dominion University (Ballroom B and C)  |   |   |
| 9:20 am - 10:05 am          | Keynote Speaker: Isogeometric Analysis: Progress and Challenges<br>T. Hughes, University of Texas at Austin (Ballroom B and C) |   |   |   |
| 10:05 am - 10:30 am         | Exhibits Open  | Break   |   |   |
| 10:30 am - 11:00 am         | Exhik  | Expanding Engineering Analysis<br>Tools to Biomedical<br>Applications: Using an Example<br>of Nasal Airflow in Patients with<br>Septal Deviations<br>G. Garcia and J. Kimbell, Hamner<br>Institute of Health Services and B.<br>Barnum and M. Cragun, OSS | Realizing Simulation Data<br>Management Interoperability<br>Across Domains<br>A. Schreiber and P. Downing,<br>Prostep | A Quasi Steady Approach to the<br>Thermal Stress Analysis in a<br>One-Way FSI<br>R. Pillai, D. Diarra, R. Hermanns,<br>K. Lucka and H. Kohne, OWI |
| 11:05 am - 11:35 am         |  | Dynamics of Social Systems -<br>Analysis and Design<br>T. Doherty, Tommy Concepts   | The Case for Simulation Lifecycle<br>Management<br>P. Lalor, SIMULIA  | A Multiphysics Approach to Tyre<br>Noise Prediction<br>S. Panigrahi, R. Litake and B.<br>Kumar, Cranes Software                                   |

| 11:40 am - 12:10 pm | Failure Analysis of Composite<br>Structures using Multicontinuum<br>Technology: A Mesh Sensitive<br>Study<br>E. Nelson and D. Robbins Jr.,<br>Firehole Technologies, Inc.   | Future Breakthroughs in<br>Creating, Managing and Analyzing<br>Simulation Data for Near-Real<br>Time Decision Making<br>J. Evans, Engineous | How Modern Software<br>Methodologies and High<br>Performance Computing will<br>Change the Face of Simulation<br>E. Dodd, IBM and J. Lyon,<br>Simudyne                     |  |  |
|---------------------|---|---|---|--|--|
| 12:10 pm - 1:40 pm  | Lunch Break   |   |   |  |  |
| 1:40 pm - 2:10 pm   | Uncertainty Quantification for<br>the Orion Crew Exploration<br>Vehicle Thermal Protection<br>System using Cielo and Dakota<br>J. Schiermeier, Jet Propulsion<br>Laboratory | Simulation and the Creative<br>Process - A New Paradigm<br>U. Schramm, Altair Engineering   | Modeling of Materials - Getting<br>to a Smaller Scale<br>R. Yancey, Altair Engineering  |  |  |
| 2:15 pm - 2:45 pm   | Uncertainty Structure Matrix for<br>Models and Simulations<br>L. Green, S. Blattnig, M. Hemsch,<br>J. Luckring and R. Tripathi, NASA<br>LaRC                                | Why Design Analysis Works -<br>Confessions of a Former Analysis<br>Snob<br>V. Adams, SolidWorks   | Simulation of Particulate Solids<br>Handling and Processing<br>Operations Using the Discrete<br>Element Method<br>R. LaRoche and D. Scharpf, DEM<br>Solutions (USA), Inc. |  |  |
| 2:50 pm - 3:20 pm   | Hypothesis Testing of Finite<br>Element Models using Load<br>Uncertainty Probability Density<br>Functions<br>J. Sundermeyer, Caterpillar, Inc.                              | Ouality Improvements and their<br>Impact in a Lean CAE "Future<br>World"<br>M. Zebrowski, Ford (Retired)                                    | Fracture, Damage and<br>Progressive Failure Analysis of<br>Composite Materials<br>S. Choudhry, P. Nordlund, and A.<br>Bout, MSC.Software                                  |  |  |
| 3:20 pm - 3:45 pm   |   | Break   |   |  |  |
| 3:45 pm - 4:15 pm   | Simulation-Supported Decision<br>Making<br>G. Allen, Decision Incite  | Drive Product Development with<br>Engineering Intent<br>M. Panthaki, Comet Solutions  | Direct Coupled-Field Elements<br>for Multiphysics Simulation<br>S. Scampoli, ANSYS  |  |  |
| 4:20 pm - 4:50 pm   | Stochastic Simulation of Aircraft<br>Cabin Interior Considering<br>Uncertain Load Conditions by<br>Modeling with Random Fields<br>D. Vogt, EADS Innovation Works            | Designer Analysis: Utopia or<br>Catastrophe?<br>R. Keene, CATIA Simulation  | Efficient Multi-physics Modeling<br>of the Dynamic Response of RF-<br>MEMS Switches<br>J. Bielen, J. Stulemeijer, D.<br>Ganjoo and D. Ostergaard, ANSYS                   |  |  |
| 6:00 pm - 8:00 pm   | Networking Reception (Ballroom A)   |   |   |  |  |

| Thursday, Oc        | ctobe         | r 30, 2008  |   |   |  |  |
|---------------------|---------------|---|---|---|--|--|
| 7:00 am - 4:00 pm   | Registration  |   |   |   |  |  |
| 7:30 am - 8:30 am   |               | Light Breakfast   |   |   |  |  |
| 8:30 am - 9:15 am   |               | Keynote Speaker: Integrated Computational Materials Engineering<br>M. Boyce, M.I.T. (Ballroom B and C)  |   |   |  |  |
| 9:20 am - 10:05 am  | -             | Keynote Speaker: Hybrid Engineering Enablers: Technology, Process and People Perspective<br>T. Abe, Ford Motor Company (Ballroom B and C)                           |   |   |  |  |
| 10:05 am - 10:30 am |               | Break   |   |   |  |  |
| 10:30 am - 11:00 am | -             | Product Performance Simulation<br>in 2020<br>M. Halpern, Gartner  | Unified FEA<br>K. D'Souza, SIMULIA  | Fatigue and Fracture Analysis -<br>"On the Fly"<br>E. Punch, Punch Software<br>Solutions  |  |  |
| 11:05 am - 11:35 am |               | The Next Revolution in<br>Simulation<br>J. Leuridan, LMS  | Advances in Elements<br>Technology: Solid-Shell Element<br>S. Shah, ANSYS               | T-Splines and Isogeometric<br>Analysis: A New Design-Through-<br>Analysis Paradigm<br>M. Scott, University of Texas at<br>Austin  |  |  |
| 11:40 am - 12:10 pm |               | US Navy Validation of<br>Computational Tools to Meet<br>Future Requirements<br>J. Grimsley, US Naval SWC  | "Get it Right the First Time" with<br>Simulation-Based Design<br>T. Weninger, ESI Group | Modeling Bolted Connections for<br>Stress Analysis<br>M. Tomlin, SIEMENS  |  |  |
| 12:10 pm - 1:30 pm  | Open          |   | Lunch Break   |   |  |  |
| 1:30 pm - 2:00 pm   | Exhibits Open | The Role of Digital Simulation in Developing a PLASVEE <sup>®</sup> for 2020<br>R. Dreisbach, L. Krueger, J. Vandeventer, The Boeing Company<br>(Ballrooms B and C) |   | Simulation Training Challenges<br>in the 2020 Workplace<br>N. Veikos and P. Barrett, CAE<br>Associates, Inc.  |  |  |
| 2:05 pm - 2:35 pm   |               |   |   | Case Study: How to Make an<br>Analysis Interface that Both the<br>Novice and the Expert will Use<br>T. Cunningham, Micro Motion,<br>Inc. and D. Hensley, ATA<br>Engineering, Inc. |  |  |
| 2:40 pm - 3:10 pm   |               |   |   | New Frontiers in CAE<br>Interoperability<br>J. Martin, ITI TranscenData   |  |  |
| 3:10 pm - 3:35 pm   |               |   | Break   |   |  |  |
| 3:35 pm - 4:05 pm   |               | The Role of Digital Simulation in Developing a PLASVEE <sup>®</sup> for 2020<br>R. Dreisbach, L. Krueger, J. Vandeventer, The Boeing Company<br>(Ballrooms B and C) |   | Issues Facing Engineering<br>Simulation: A CAE Providers<br>Perspective<br>D. Conover, ANSYS  |  |  |
| 4:10 pm - 4:40 pm   |               |   |   | Virtual Prototyping - An<br>Analyst's Dream: Progress<br>Challenges and Future Path to<br>2020<br>S. Choudhry, MSC.Software   |  |  |
| 5:00 pm - 8:30 pm   |               | Tour of the Center for Advanced Engineering Environments (CAEE) (off-site)  |   |   |  |  |

## Friday, October 31, 2008



End of Conference