

# The 2014 Wisconsin Forum on Advanced Computing in Engineering

## (W-FACE 2014)

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*The events listed, unless noted otherwise, will take place in room 2188ME (Mechanical Engineering Building – 1513 University Avenue)*

### Tuesday, May 13th, 2013

09:00 – 09:30	Introductions, Logistics and Goals of the Meeting Professor Dan Negrut, UW-Madison
09:30 – 10:30	Keynote Talk: Mobility Modeling & Simulation Strategy at US Army TARDEC Dr. Paramsothy Jayakumar, US Army: 45 min talk + 15 min Q&A
10:30 – 11:00	Networking Break
11:00 – 12:00	Keynote talk: Virtual Product Development at Caterpillar Dr. Mustafa Alsaleh, Caterpillar Inc.: 45 min talk + 15 min Q&A
12:00 – 13:30	Lunch
13:30 – 14:30	Keynote Talk: Multi-Body Dynamic Simulation in the Motorcycle Development Process at Harley-Davidson Mr. Barry Hoff, Harley-Davidson: 45 min talk + 15 min Q&A
14:30 – 15:00	Networking Break
15:00 – 15:30	An Overview of Terrain Modeling and Simulations at UW-Madison Dr. Justin Madsen, Postdoc, UW-Madison
15:30 – 16:00	An Absolute Nodal Coordinate Formulation Tire Model for Ground Mobility Simulation Professor Hiroyuki Sugiyama, University of Iowa, Iowa City
16:00 – 16:30	Coffee Break
16:30 – 17:00	Research Directions at the UW-Madison Simulation-Based Engineering Lab Professor Dan Negrut, UW-Madison
17:00 – 17:30	Student Poster Presentation (2-3 min pitches)
17:30 – 18:00	Student-Visitor Interaction Time (in Simulation-Based Engineering Lab, live demos)
18:00 – 18:30	Happy Hour, Steenbock's on Orchard (Wisconsin Institute for Discovery)
18:30 – 20:30	Dinner at Steenbock's on Orchard (Wisconsin Institute for Discovery)

**Wednesday, May 14th, 2013**

08:30 – 09:15	Chrono – a Software Capability for Computational Dynamics Problems Professor Alessandro Tasora, University of Parma, Italy
09:15 – 09:45	TBA Steven Peters, Open Source Robotics Foundation, Mountain View, CA
09:45 – 10:15	Networking Break
10:15 – 12:30	Round Table Discussion [Brown Bag Lunch]: MaGIC – The Machine-Ground Interaction Consortium Discussion Points: <ul style="list-style-type: none"> <li>• Is there a need?</li> <li>• What would the vision be?</li> <li>• Strategic details: milestones, deliverables</li> <li>• Financial aspects</li> <li>• Operation details: Pre-competitive basis participation, consortium structure, meeting frequency, etc.</li> </ul>
12:30 – 13:00	Consortium discussion wrap up (Negrut, UW-Madison)
13:00 - 13:30	Networking Break

	<b>Chrono Interest Group Meeting – Session 1</b>
13:30 – 15:00	Talk 1 [30 min]: Mr. Ashraf Sultan, SimLab Soft Interfacing Chrono to the SimLab Soft CAD Preprocessor  Talk 2 [30 min]: Dr. Ivan Metrikin, Statoil ASA, Norway Using Chrono for Simulating Vessels and Offshore Structures in the Arctic Ocean  Talk 3 [30 min]: Dr. Radu Serban, Senior Scientist, UW-Madison The Chrono::Vehicle Project for the US Army CRES-GV Initiative
15:00 – 15:30	Coffee Break
	<b>Chrono Interest Group Meeting – Session 2</b>
15:30 – 17:00	<ul style="list-style-type: none"> <li>- Development priorities/wish list <ul style="list-style-type: none"> <li>o Vehicle/terrain integration</li> <li>o Validation aspects</li> </ul> </li> <li>- Software design issues</li> <li>- Software deployment issues</li> <li>- Sustainability aspects</li> <li>- Third party integration aspects</li> </ul>