Future Directions in CFD Research: A Modeling and Simulation Conference, Aug 6-8, 2012. Hampton Roads Convention Center			
Monday, August 6, 2012			
7:30am-8:00am			**REGISTRATION & WELCOME - CONVENTION CENTER ROOMS 108-109**
Session 1 Chair: Mujeeb Malik			
8:00am-8.05am	Mujeeb Malik	NASA Langley	**WELCOME**
8.05am-8.15am	Charlie Harris	NASA Langley	**WELCOME**
8:15am -8:45am	Jay Dryer	NASA HQ	Fundamental Aeronautics Program and Revolutionary Computational Aerosciences
8:45am-9:15am	David Keyes	Columbia/KAUST	The Missing Mathematics for Extreme-scale CFD
9:15am-9:45am	Tony Jameson	Stanford University	Computational Fluid Dynamics: Past, Present and Future
9:45am-10:15am	Mark Anderson	Boeing	CFD: The Industrial Perspective
10:15am-10:35am			**BREAK**
Session 2 Chairs: Mark Carpenter & Eric Nielsen			
10:35am-11:05am	David Darmofal	MIT	On the Importance of Adaptivity for Higher-order Discretizations in Aerospace Applications
11:05am-11:35am	David Kopriva	Florida State University	Development of Spectral Element Methods for Compressible Flow Problems
11:35am-12:05pm	Dimitri Mavriplis	University of Wyoming	Exascale Opportunities for Computational Aerodynamics
12:05pm-1:05pm			**LUNCH - EMBASSY SUITES DINING AREA - BUFFET LUNCH***
Session 3 Chairs: Eric Nielson & Jim Thomas			
1:05pm-1:35pm	Geoffrey Fox	Indiana University	CFD and Cloud Computing
1:35pm-1:55pm	Joel Saltz	Emory University	Tools, Techniques and Methods for Integrative Data Analytics
1:55pm-2:15pm	David Nicol	University of Illinois - UC	A Different Kind of Flow Analysis
2:15pm-2:35pm	Alan Sussman	University of Maryland	Software Tools for Parallel Coupled Simulations
2:35pm-3:00pm			**BREAK**
Session 4 Chairs: Chris Rumsey & Mark Carpenter			
3:00pm-4:00pm	Philippe Spalart	Boeing	Reflections on RANS Modeling
4:00pm-4:30pm	Nick Georgiadis	NASA Glenn	Status of Turbulence Modeling for Propulsion Flow Problems
Wrap Up: Boris Diskin & Joe Morrison			
4:30pm-5:00pm			**Day 1 WRAP UP/DISCUSSION**
Tuesday, August 7, 2012			
Session 5 Chairs: Joe Morrison & Chris Rumsey			
8:00am-8:45am	Parviz Moin	Stanford University	High-Fidelity Numerical Simulation of Multi-physics Turbulent Flows in Complex Geometries
8:45am-9:15am	Peyman Givi	University of Pittsburgh	Filtered Density Function and the Potential for Its Quantum Computation
9:15am-9:45am	Swen Noelting	EXA Corporation	The Lattice-Boltzmann Method – CFD for Unsteady Flow Simulations
9:45am-10:15am	Philip Hall	Imperial College, London	Vortex-Wave Interaction Theory: Rolls, Streaks and Waves and the Emergence of Turbulent Spots
10:15am-10:35am			**BREAK**
Session 6 Chairs: Chris Rumsey & Jim Thomas			
10:35pm-11:00am	Sutanu Sarkar	UC - San Diego	Turbulence in the Environment
11:00am-11:25am	Svetlana Poroseva	University of New Mexico	Perspectives in Modeling Wall Effects in the RANS Approach
11:25am-11.45pm	P. K. Yeung	GA Tech	Petascale Computing and Similarity Scaling in Turbulence
11.45am-12.00pm			**GROUP PHOTO TO BE TAKEN IN LOBBY**
12:00pm-1:00pm			**LUNCH - EMBASSY SUITES DINING AREA - BUFFET LUNCH***
Session 7 Chair: Phil Roe			
1:00pm-1:20pm	Dan Zaide	University of Michigan	How to Capture a Shock Wave?
1:20pm-1:40pm	Hiro Nishikawa	NIA	How to Model Diffusion?
1:40pm-2:00pm	Doru Caranei	CD-Adapco	How to Use a Residual?
2:00pm-2:30pm	Phil Roe	University of Michigan	How to Calculate a Flux?
Session 8 Chairs: Boris Diskin & Jim Thomas			
2:30pm-3:00pm	Eli Turkel	Tel Aviv University	Fast Acceleration Methods for Navier-Stokes Equations, Including Turbulence and Chemistry
3:00pm-3:20pm			**BREAK**
3:20pm-4:00pm	Graham Candler	University of Minnesotta	Prospects for High-Speed Flow Simulations
4:00pm-4:30pm	Helen Yee	NASA Ames	Spurious Behavior of Shock-Capturing Methods Below the CFL Limit
4:30pm-5:00pm	Ajay Kumar	NASA Langley	Complementary but Changing Roles of Computational and Experimental MODSIM
Wrap Up: Eric Nielsen & Mark Carpenter			
5:00pm-5:30pm			**Day 2 WRAP UP/DISCUSSION**
Wednesday, August 8, 2012			
Session 9 Chairs: Mark Carpenter & Boris Diskin			
8:00am-8:45am	Norbert Kroll	DLR, Germany	DIGITAL-X: DLR's Way towards the Virtual Aircraft
8:45am-9:15am	Dennis Bushnell	NASA Langley	Epistemic Issues Concerning Boundary and Initial Conditions in MODSIM
9:15am-9:45am	Farrukh Alvi	Florida State University	Some Challenging Problems in Flow and Noise Control: An Experimental Perspective
9:45am-10:15am	Fang Hu	Old Dominion University	Time Domain Methods for Computational Aeroacoustics
10:15am-10:35am			**BREAK**
Session 10 Chairs: Boris Diskin & Eric Nielsen			
10:35am-11:00am	S. Balachandar	University of Florida	Recent Advances in Compressible Multiphase Flow
11:00am-11:30am	Oleg Vasilyev	University of Colorado	Dynamic Two-way Coupling of Numerics and Physics-based Models
11:30am-12:00pm	Ye Zhou	LLNL	Interacting Scales and Minimum State for Computing High Reynolds Number Turbulent Flows
12:00pm-1:00pm			**LUNCH - EMBASSY SUITES DINING AREA - BUFFET LUNCH***
Session 11 Chairs: Steven Woodruff & Joe Morrison			
1:00pm-1:30pm	Tom Zang	NASA - retired	Challenges in Making Uncertainty Quantification for CFD a Useful Product
1:30pm-2:00pm	Lionel Mathelin	LIMSI-CNRS	Uncertainty Quantification from High-Dimensional Experimental Data
2:00pm-2:30pm	Peter Duck	University of Manchester	Particle-laden Flows
			NO OFFICIAL BREAK - BUT REFRESHMENTS ARE AVAILABLE OUTSIDE CONFERENCE ROOM (2:30PM-4:00PM)
2:30pm-3:00pm	Adrien Toutant	PROMES-CNRS	Influence of the Heat Transfers on Turbulence Spectra
3:00pm-3:30pm	Oleg Zikanov	University of Michigan-Dearborn	Turbulence and Transition in Magnetohydrodynamics at High Re and Strong Magnetic Fields
3:30pm-4:00pm	James Quirk	LANL	Executable Papers: Celebrating The CFD Past, Present, and Future
Wrap Up: Chris Rumsey & Jim Thomas			
4:00pm- 5:00pm			**WRAP UP/DISCUSSION**