TECHNION
Israel Institute of Technology

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Graduate Students, Academia Researchers, Industry & Government Practicing Engineers, Project Managers and Experts

We are pleased to invite you to attend

CFD IMPACT 2016 CONFERENCE

Space is Limited !

Israel Multidisciplinary Parallel Advanced Computational Turbulence

Program | June 28, 2016

D. Dan and Betty Kahn Faculty of Mechanical Engineering Building
Technion - Israel Institute of Technology

08:15-09:00 — **Gathering and Refreshments**

09:00-10:00 — **Opening Session**
09:00-09:10 — Opening Remarks
09:10-10:00 — Keynote Lecture
Parallel High-Order Finite-Volume Methods with Adaptive Mesh Refinement for Physically-Complex Flows
Clinton Groth, Institute for Aerospace Studies, University of Toronto, Ontario, Canada

10:00-10:20 — **Coffee Break**

10:20-11:50 — **1st Session - High-Order Numerical Methods and LES Applications**
10:20-10:50 — *High Fidelity Large Eddy Simulation of Rotorcraft Aerodynamics using a Multiblock Immersed Boundary Method*
Yann Delorme, Faculty of Mechanical Engineering, Technion, Israel
10:50-11:20 — *Development and Application of a High-Order Flux Reconstruction Compressible Navier-Stokes Solver on Unstructured Grids*
Kunal Puri, Faculty of Mechanical Engineering, Technion, Israel
11:20-11:50 — *Roll Torque Prediction in Solid Rocket Motors using High-Order Finite-Volume Numerical Scheme*
Hod Wirzberger, **Oren Peles**, IMI SYSTEMS, Israel and **Eli Turkel**, School of Mathematics, Tel-Aviv University, Israel

11:50-12:10 — **Coffee Break**

12:10-13:40 — **2nd Session - LES applications, Hybrid RANS/LES, and Multiphase Flow**
12:10-12:40 — *Aero-Optic Predictions at Transonic Flow Using Compressible Large Eddies Simulations*
Eran Arad and **Mickey Weidenfeld**, Rafael, Israel
12:40-13:10 — *A New Hybrid RANS/LES Method Applied to Turbulent Channel Flow*
Zvi Hantsis, Faculty of Mechanical Engineering, Technion, Israel
13:10-13:40 — *On The Application of A High-Order Positivity-Preserving Limiter for Compressible Multicomponent and Multiphase Flow*
Ory Haimovich, Faculty of Mechanical Engineering, Technion, Israel

13:40-14:30 — **Lunch Break**

14:30-16:00 — **3rd Session - High-Performance Computing and CFD**
14:30-15:00 — *Introduction to High-Performance Parallel Computing Technologies*
Mark Silberstein, Faculty of Electrical Engineering, Technion, Israel
15:00-15:30 — *Collaborating CPU and GPU for Large-Scale High-Order Cfd Simulations with Complex Grids on the Tianhe-1A Supercomputer*
Chuanfu Xu, Computer College, National University of Defense Technology, Changsha, China and **Yonggang Che**, Science and Technology on Parallel and Distributed Processing Laboratory, National University of Defense Technology, Changsha, China
15:30-16:00 — *Scaling a Combustion Simulation Application to the Tianhe-2 Supercomputer*
Yonggang Che, Science and Technology on Parallel and Distributed Processing Laboratory, National University of Defense Technology, Changsha, China and **Chuanfu XU,** Computer College, National University of Defense Technology, Changsha, China

16:00-16:30 — **Final Remarks, Discussions, Tour of new Computational Teaching Lab, Adjourn**

Participation is free but requires registration!
Only 50 seats are available !

Register now to secure your seat!

For more information please visit our website: www.cfdimpact.org