TUESDAY, SEPTEMBER 24

### MORNING

7:00-8:00	BREAKFAST & REFRESHMENTS
7:45-8:00	WELCOME Kelly Senecal, Convergent Science
8:00-8:40	KEYNOTE THE FUTURE OF COMPUTING: BIG DATA, BIG COMPUTE AND DIGITAL TRANSFORMATION Joris Poort, Rescale
8:40-9:05	ACCELERATING DESIGN OPTIMIZATION USING MACHINE LEARNING AND HPC Opeoluwa Owoyele, Argonne National Laboratory
9:05-9:30	CFD-BASED FEATURE ENGINEERING FOR NOX MACHINE LEARNING MODEL Saurabh Sharma, Isuzu Technical Center of America
9:30-9:55	COMBUSTION SYSTEM DESIGN OPTIMIZATION FOR A HEAVY DUTY GASOLINE CI ENGINE Meng Tang, Aramco Research Center-Detroit
9:55-10:10	SPONSOR PRESENTATION TotalCAE
10:10-10:30	BREAK
10:30-10:55	ENABLING NEW APPLICATIONS WITH CONVERGE V3.0 Tristan Burton, Convergent Science
10:55-11:20	AERODYNAMIC CHARACTERIZATION OF AN UNMANNED AERIAL SYSTEM VIA 3D CFD SIMULATIONS I-Han Lui, Argonne National Laboratory
11:20-11:45	CFD MODELING OF FLAME SPRAY PYROLYSIS FOR LARGE-SCALE MANUFACTURING APPLICATIONS Debolina Dasgupta, Argonne National Laboratory
11:45-12:00	SPONSOR PRESENTATION Tecplot
12:00-1:30	LUNCH

#### AFTERNOON / EVENING

1:30-1:55	SIMULATION OF FLAME PROPAGATION IN AN ANNULAR COMBUSTOR Haiwen Ge, Texas Tech University
1:55-2:20	NUMERICAL MODELING OF SUPERSONIC COMBUSTION IN ROTATING DETONATION ENGINES Pinaki Pal, Argonne National Laboratory
2:20-2:45	WHAT V3.0 DELIVERS FOR AFTERTREATMENT AND GAS TURBINES Scott Drennan, Convergent Science
2:45-3:00	SPONSOR PRESENTATION Rescale
3:00-3:20	BREAK
3:20-4:00	KEYNOTE NUMERICAL SIMULATION OF PHYSIOLOGICAL FLOWS Alejandro Roldán-Alzate, University of Wisconsin-Madison
4:00-4:25	PARAMETRIC STUDIES ON AXIAL AND RADIAL CLEARANCES IN A BLOOD PUMP Choon-Sik Jhun, Penn State University

:00-10:00

**DINNER + RIVER CRUISE** Steamboat NATCHEZ

Reservation required. Transportation provided. Please meet in venue hotel lobby at 5:30p.

## WEDNESDAY, SEPTEMBER 25

#### MORNING

7:00-8:00	BREAKFAST & REFRESHMENTS
7:50-8:00	WELCOME BACK Elizabeth Favreau, Convergent Science
8:00-8:40	KEYNOTE ITCA'S WAY FORWARD? MAYBE! Bruce Vernham, Isuzu Technical Center of America
8:40-9:05	INTERNAL NOZZLE FLOW SIMULATIONS ACCOUNTING FOR GAS WITHIN THE SAC AND INJECTOR ELASTICITY Lyle Pickett, Sandia National Laboratories
9:05-9:30	FUEL EFFECTS IN MULTIPHASE FLOW MODELING FOR SI AND CI CONDITIONS AND INJECTORS Lorenzo Nocivelli, Argonne National Laboratory
9:30-9:55	SPRAY A MODELLING USING CONVERGE Rajes Ram Muthukumar, <i>Texas Tech University</i>
9:55-10:15	BREAK
10:15-10:40	THE IMPORTANCE OF NON-SPHERICAL DROPS IN SUPERCRITICAL FUEL INJECTION Tuan Nguyen, Sandia National Laboratories
10:40-11:05	NUMERICAL STUDY OF PRE-CHAMBER IGNITION IN A GASOLINE DIRECT-INJECTION ENGINE Anqi Zhang, Aramco Research Center-Detroit
11:05-11:30	STATE-OF-THE-ART IN PRE-CHAMBER SPARK-IGNITION MODELING Joohan Kim, Argonne National Laboratory
11:30-11:55	INVESTIGATIONS ON PASSIVE PRE-CHAMBER IGNITION DEVICE Adele Poubeau, IFP Energies nouvelles
12:00-1:30	LUNCH

#### AFTERNOON / EVENING

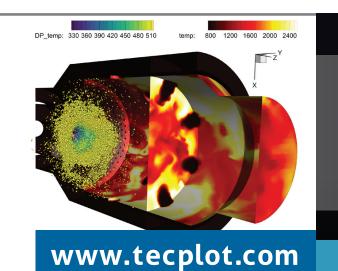
1:30-1:55	LES OF STRATIFIED LOW TEMPERATURE COMBUSTION ENGINES USING CONVERGE Aimilios Sofianopoulos, Convergent Science
1:55-2:20	POTENTIAL EFFICIENCY IMPROVEMENTS WITH CO-OPTIMIZATION OF FUELS AND ENGINES Chao Xu, Argonne National Laboratory
2:20-2:45	STUDY OF THE SOOT FORMATION IN A GDI SPRAY USING LASER-INDUCED PLASMA IGNITION Fabien Tagliante, Sandia National Laboratories
2:45-3:10	CFD STUDY OF TSCI WITH WET ETHANOL: SPRAY ANGLE EFFECT ON THERMAL STRATIFICATION Mozhgan Rahimi Boldaji, <i>Clemson University</i>
3:10-3:30	BREAK
3:30-3:55	CI AND SI ENGINE APPLICATIONS WITH ECFM AND ECFM3Z Olivier Colin, IFP Energies nouvelles
3:55-4:20	USING THICKENED FLAME MODEL AND AMR FOR TURBULENT COMBUSTION MODELING Cedric Mehl, IFP Energies nouvelles
4:20-4:45	RECENT PROGRESS OF THE COMPUTATIONAL CHEMISTRY CONSORTIUM Henry Curran, NUI Galway
4:45-5:10	CONVERGE 3.0 RESULTS AND LOOKING AHEAD TO 3.1 Keith Richards, Convergent Science
5:10	CLOSING REMARKS

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