2015 UTSR Poster Presentations

Prediction of Auto-Ignition Regimes in Turbulent Reacting Flows with Thermal Inhomogeneities
Pinaki Pal, University of Michigan, Ann Arbor

New Mechanistic Models of Creep-Fatigue Interactions in IN 718
Thomas Siegmund, Purdue University

Nozzle Guide Vane Deposition in a New Turbine Cascade Rig
Ryan Lundgreen, The Ohio State University

Crystal Viscoplasticity Creep-Fatigue Interaction Model for CMSX-8
Ernesto A. Estrada Rodas, Georgia Institute of Technology

Measurement of Convective and Radiative Heat Transfer in Flame Impingement
David Gomez Ramirez, Virginia Polytechnic Institute and State University

Advanced Bond Coats for Thermal Barrier Coating Systems Based on High Entropy Alloys
Derek Hass, DVTI

Autoignition of a Jet-A Spray in a Hot, Vitiated Air Flow
Aimee Williams, Georgia Institute of Technology

Mapping Fuel Temperatures and Concentrations in Gas-Turbine Combustor by Planar Laser-Induced Phosphorescene
Zu Puayen Tan, Georgia Institute of Technology

Precession Effects on the Relationship Between Time-Averaged and Instantaneous Swirl Flow and Flame Characteristics
Ianko Chterev, Georgia Institute of Technology

Spatially Resolved PIV and CH-PLIF Measurements and Stretch Calculations of Flame Stabilization in a High Shear Swirling Environment
Ianko Chterev, Georgia Institute of Technology

Forced Ignition of Fuel-Stratified Flows
Sheng Wei, Georgia Institute of Technology

Dynamics of Premixed Flames Subjected to Helical Flow Disturbances
Vishal Acharya, Georgia Institute of Technology

Response of Non-Premixed Flames to Flow Perturbations
Nicholas A. Magina, Georgia Institute of Technology

Modeling the Response of Turbulent Flames to Harmonic Forcing
Luke Humphrey, Georgia Institute of Technology

Transverse Acoustic Response of Swirl Stabilized Flames
Travis Smith, Georgia Institute of Technology

Experimental Design for RDE Inlet Testing
Andrew Sisler, U.S. Department of Energy, National Energy Technology Laboratory

Criteria for Instability of Helical Disturbances in Inviscid Swirling Flows
Christopher Douglas, Georgia Institute of Technology

Parallel On-The-Fly Adaptive Kinetics in the Direct Numerical Simulation of Turbulent Premixed Flame
Suo Yang, Georgia Institute of Technology

Measurement of Turbulent Flame Speeds for Syngas Mixtures
Alexander Steinbrenner, Georgia Institute of Technology

Effects of Nozzle Design on Emissions in a Natural Gas Combustor
Scott K. Sheppard, Georgia Institute of Technology

Structure of Turbulent Lean H_2/Air Flames
Debolina Dasgupta, Georgia Institute of Technology

Ozone-Assisted Combustion
Xiang Gao, Georgia Institute of Technology

A Global Pathway Selection Method for the Reduction of Detailed Mechanism
Xiang Gao, Georgia Institute of Technology

Fundamental Study of Key Issues Related to Advanced S-CO_2 Brayton Cycle
Sandeep R. Pidaparti, Georgia Institute of Technology

Bluff Body Flames Near the Global Stability Boundary
Benjamin Emerson, Georgia Institute of Technology

Stability Analysis of Reacting Wakes: Flow and Density Asymmetry Effects
Benjamin Emerson, Georgia Institute of Technology

Experimental and Computational Research on Rotating Detonation Engine for Land Based Power Generation
Arnab Roy, AECOM