

2026 SPRING TECHNICAL MEETING
EASTERN STATES SECTION OF THE COMBUSTION INSTITUTE
North Carolina State University
Raleigh, North Carolina
March 15 - 18, 2026

Sunday, March 15, 2026

- 3:00 - 5:00** **ESSCI Executive Board Meeting** - Hunt Library, Cornelson Meeting Room 4502 (4th floor)
3:00 - 5:00 **Optional Combustion Lab Tours**
6:00 - 8:00 **Welcome Reception** – North Carolina Museum of Natural Sciences

Monday, March 16, 2026

- 8:15 - 17:20** **Registration** – Outside Duke Energy Hall A
8:15 - 8:25 **Welcome Remarks/Announcements** – Hunt Library Auditorium (street-level entrance)
Michael Mueller, Chair, *The Eastern States Section of The Combustion Institute*
Professor Srinath Ekkad, Department Head of Mechanical & Aerospace Engineering, *North Carolina State University*
Tarek Echekki, Local Host Team, *North Carolina State University*
- 8:25 - 9:25** **Plenary Lecture** – Hunt Library Auditorium (street-level entrance)
Albert Simeoni, *Worcester Polytechnic Institute*
Title: Wildfires as a Multiscale, Multiphysics Problem
Session Chair: Tarek Echekki

9:25 - 9:35 Transfer

	Detonations & Supersonic Combustion Duke Energy Hall B Session Chair: Y.C. Mazumdar	Computationally & Data-Intensive Research Duke Energy Hall C Session Chair: V. Acharya	Soot & Other Combustion-Generated Aerosols Duke Energy Hall D Session Chair: C.-J. Sung
9:35	1A01: Quantifying the accuracy of detonation simulations using rigorous detonation cell size statistics <i>J. Leff, J. Braun</i>	1B01: Deep kernel Gaussian processes for modeling the steady diffusion flame branch across pressure regimes <i>F.N. Rhisat, J.W. Meadows</i>	1C01: Non-linear effects of aromatic/cycloalkane blending on soot volume fraction and size in surrogate aviation fuels <i>L. Krebbers, A.M. Ferris</i>
9:55	1A02: Study of solid fuel particles in gas phase detonations <i>M. Christie, S. Padmanabhan, C. Brookins, Y.C. Mazumdar</i>	1B02: GLU: Global-Local-Uncertainty fusion for sparse multi-field reconstruction of turbulent combustion systems <i>L. Wang, J. Chen, N. Tricard, S. Deng</i>	1C02: Soot volume fraction measurements in a solid-fuel opposed flow burner using laser-induced incandescence <i>R.A. Onifade, S. Bidwai, M.A. Welch, J.B. Michael</i>

	Detonations & Supersonic Combustion Duke Energy Hall B Session Chair: Y.C. Mazumdar	Computationally & Data-Intensive Research Duke Energy Hall C Session Chair: V. Acharya	Soot & Other Combustion-Generated Aerosols Duke Energy Hall D Session Chair: C.-J. Sung
10:15	1A03: Probing hydrogen peroxide sensitization effects on steady-state two-phase n-dodecane detonations <i>W. Wang, X. Zhao</i>		1C03: Framing camera time-resolved laser induced incandescence measurements in a rich quench lean combustor <i>E.J. Douglas, R. Vishwanath, H. Dhayal, A. Steinberg, W. Sun, Y.C. Mazumdar</i>
10:35 - 10:55 Break – Duke Energy Hall A 10:35 - 10:55 Research Fellow Program Introduction – Duke Energy Hall B			
	Diagnostics Duke Energy Hall B Session Chair: C. Grégoire	Laminar Flames Duke Energy Hall C Session Chair: P. Papas	Reaction Kinetics & Fuels Duke Energy Hall D Session Chair: A.M. Ferris
10:55	1A04: Using mid-wave infrared imaging to measure surface temperature in combustion experiments <i>P. Richins, C. Clark, M. Cassens, S. Lynch, J. O'Connor</i>	1B04: Cool diffusion flames of four alkanes, gasoline, and diesel <i>S. Roy, Y. Zheng, P.B. Sunderland</i>	1C04: Assessing ncsuPFASmech modeling with MBMS measurements for PFAS pyrolysis <i>H. Ram, P.R. Westmoreland</i>
11:15	1A05: Multi-parameter spectral fitting for CARS measurements in high-speed reacting flows <i>O.T. Petito, A.J. Metro, A.D. Cutler, C.E. Dedic</i>	1B05: Subzero laminar burning velocity of ammonia and hydrogen <i>A. Aversa, D. Trinidad, S.K. Das, F. De Domenico, J.H. Mack</i>	1C05: High-temperature shock tube study of dimethylcyclohexane oxidation chemistry <i>C.A. Kamal, M.D. Hageman, M.S. Knadler, A.M. Ferris</i>
11:35	1A06: Impact of stagnation surface on post-flame temperature profiles for material durability testing <i>M. Cassens, P. Richins, C. Clark, G. Mathews, J. O'Connor</i>	1B06: Low, intermediate, and high temperature reaction zones in multistage n-heptane counterflow diffusion flames <i>Y. Zheng, P.B. Sunderland</i>	1C06: Ignition delay time measurements of conventional and synthetic jet fuels <i>C. Li, W. Sun, C. Banyon, C. Cross</i>
11:55	1A07: Generation and characterization of fs pulse trains for speciation of unburnt hydrocarbons using coherent Raman scattering <i>A.L. Stevenson, C.E. Dedic</i>	1B07: Ignition behaviors of n-heptane in a counterflow diffusion flame <i>M.K. Yoon, A.K. Alwahaibi, F.L. Dryer, S.H. Won</i>	1C07: Ab initio sub-mechanism development for cyclopentene oxidation <i>A.W. Hill, D.A. Moore, S.G. Lewis, A. Carroll, A.V. Copan, B. Rotavera</i>

12:15 - 1:30 Lunch – On the Oval Food Hall on Centennial Campus (approximately 2-minute walk from Duke Energy Hall)

12:15 - 1:30 Women in Combustion Event/Luncheon – Duke Energy Hall A

	Fire Research Duke Energy Hall B Session Chair: J.L. Urban	Novel Energy Conversion Techniques Duke Energy Hall C Session Chair: S.H. Won	Detonations & Supersonic Combustion Duke Energy Hall D Session Chair: C.E. Dedic
1:40	1A08: Local convective heat fluxes in concurrent flame spread <i>P.E. Pinto, M. Thomsen, J.L. Urban</i>	1B08: Two-dimensional modeling of hybrid nanosecond pulsed and DC discharges for H₂/air ignition <i>Z. Shi, Y. Ju</i>	1C08: Numerical analysis of mixing behavior and performance of a methane-oxygen RDE <i>J. Lance, J. Braun</i>
2:00	1A09: State of charge dependent thermal decomposition kinetics for Li-ion cathodes via KA-CRNNs <i>B.C. Koenig, S. Deng</i>	1B09: Enclosed Swiss-roll combustor for methane emission reduction <i>J. Loza, D. Carlson, P. Rao, P. Radjowski, C.-H. Chen</i>	1C09: Application of a computation tool for automated performance analysis of rotating detonation engine doublet injectors <i>S. Harrington, J. Braun, W. Stigliano</i>
2:20	1A10: Estimating the flammability of a lithium-ion battery's vent gas using a phi meter <i>R. Falkenstein-Smith, C. Paul, T. Cleary</i>	1B10: Role of acidic sites in plasmocatalytic CO₂ hydrogenation to methanol <i>M. Miao, E. Hoque, F. Li</i>	1C10: Injector dynamics and counter-propagating detonations in 2D rotating detonation engine models <i>T. Kickliter, I. Tidwell, V. Acharya, T. Lieuwen</i>
2:40	1A11: Deep-learning firebrand tracking methodology <i>F. Ebensperge, X. Xi, A. Simeoni</i>	1B11: Comparative study of plasma and spark ignition in methane-air spherically expanding flames <i>S.K. Das, Y. Zhang, A. Boules, D.G. Trinidad, B. Nawaz, J.P. Trelles, J.H. Mack</i>	1C11: Characterization of unstable modes in rotating detonation engines <i>W. Stigliano, J. Grunenwald, J. Braun</i>
3:00	1A12: Towards characterizing WUI fire exposure to structures from near-home combustibles: Trash bins <i>S.K. Bathina, L. Zhu, J. Urban</i>	1B12: Synergistic acid-redox tandem catalysis for redox oxidative cracking of naphtha via <i>in-situ</i> selective hydrogen combustion in chemical looping scheme <i>I. Sultan, B. Jin, Y. Gao, F. Li</i>	1C12: Optical characterization of wave propagation within a narrow channel detonation facility <i>S.M. Sawaya, M. Novak, S. Poole, C.E. Dedic</i>

3:20 - 4:00 Break – Duke Energy Hall A

3:30 - 4:00 ESSCI General Member Meeting – Hunt Library Auditorium

	Fire Research Duke Energy Hall B Session Chair: R. Falkenstein-Smith	Computationally & Data-Intensive Research Duke Energy Hall C Session Chair: B. Bojko	Reaction Kinetics & Fuels Duke Energy Hall D Session Chair: A.V. Copan
4:00	1A13: Role of local atmospheric conditions on fire dynamics for grassland fuels <i>K. Prasad, E. Mueller, A. McCutchan, J. Charney, M. Gallagher</i>	1B13: Physics-based dimensionality reduction for data-based turbulent combustion modeling <i>I.J. Bonilla, C.E. Lacey, M.E. Mueller</i>	1C13: Influence of substituents in alkyloxirane isomers on carbonyl formation <i>D.A. Moore, S.A. Marvin, T.N. Smith, A.W. Hill, N.S. Dewey, S.G. Lewis, A.V. Copan, E.M. Ferreria, B. Rotavera</i>
4:20	1A14: Near-field measurements of pool fire dynamics in field scale experiments under a forest canopy <i>M.K. Selvaraj, W. Gong, N. Muniraj, A. Simeoni</i>	1B14: A physics informed machine learning framework for spectroscopy driven prediction of thermophysical properties of emerging liquid fuels <i>M. Burnett, F.L. Dryer, S.H. Won</i>	1C14: Potential energy surfaces for R and ROO isomers of alkyloxiranes <i>T.N. Smith, D.A. Moore, A.V. Copan, B. Rotavera</i>
4:40	1A15: Ignition of wood by convection and radiation heating. Part I: Experiments <i>J. Valdivia, A. Bhattacharjee, O. Hollenbeck, X. Xi, J.L. Urban</i>	1B15: Comparative numerical analysis of hydrogen-methane fuel blends in a porous radiant burner <i>H. Aryal, U.I. Mohd Rozaidin, B. Parmar, S. Wijeyakulasuriya, P. Cheekatarla, H. Li, V. Akkerman</i>	1C15: Pressure-dependent kinetics of cyclopentene consumption <i>A.V. Copan, B. Rotavera</i>
5:00	1A16: Ignition of wood by convection and radiation heating Part II: Model <i>A. Bhattacharjee, J. Valdivia, O. Hollenbeck, X. Xi, J.L. Urban</i>	1B16: A DNS aided near wall similarity description of a reacting ablating solid fuel interface <i>K. Budzinski, P.E. DesJardin</i>	1C16: Determining multi-step non-isothermal reaction kinetics of gypsum board using isoconversional methods and optimization <i>M. Saad, H. Sezer, S.P. Kozhumal</i>
5:30 - 6:30 Mentor-Mentee Program – Duke Energy Halls A & B			
6:30 - 8:30 Optional Mixer – Raleigh Brewing Co.			

Tuesday, March 17, 2026

8:15 - 4:00 **Registration** – Outside Duke Energy Hall A
8:10 - 8:15 **Announcements** – Hunt Library Auditorium (street-level entrance)
 Tarek Echehki, Local Host Team, *North Carolina State University*

8:15 - 9:15 **Plenary Lecture** – Hunt Library Auditorium (street-level entrance)
Roger Barker, *North Carolina State University*
Title: Revolutionary Advances in Evaluating the Performance of Firefighter Protective Gear in Full-Scale Fire Tests
Session Chair: Phil Westmoreland

9:15 - 9:25 Transition to Morning Sessions

	IC Engines, Gas Turbines, & Rockets Duke Energy Hall B Session Chair: R. DeBoskey	Computationally & Data-Intensive Research Duke Energy Hall C Session Chair: M.K. Selvaraj	Reaction Kinetics & Fuels Duke Energy Hall D Session Chair: F.M. Haas
9:25	2A01: Impact of fuel mixture composition on the static and dynamic stability of swirl-stabilized flames in a model gas turbine combustor <i>A.T. Shealy, R.L. Limbaugh, A. Karmarkar, S.H. Won</i>	2B01: A neural implicit flow-based super-resolution approach for reacting flows <i>D.V. Amarathunga, T. Echehki</i>	2C01: Predictive chemical models for incineration of Novichok <i>M. Manouchehri, P.R. Westmoreland</i>
9:45	2A02: Impact of central piloting on combustion efficiency of a swirl-stabilized flame with dilution and hydrogen addition <i>J. Uma, J.R. Camacho, J. O'Connor</i>	2B02: A novel framework for improving the accuracy of Quasi-DNS in combustion <i>S. Yannuwar, D.V. Amarathunga, T. Echehki</i>	2C02: Evaluating model uncertainty due to missing reactions <i>E.C. Kane, Joe Lee, M.P. Burke</i>
10:05	2A03: Flame dynamics and emissions in stratified ammonia/hydrogen/nitrogen-air flames <i>S.L. Rzepka, M.E. Mueller</i>	2B03: Large eddy simulation of an axisymmetric scramjet combustor using a high-order spectral element method <i>T.S. Koeplinger, J.R. Edwards</i>	2C03: T/P/X-Dependent rate constants for NH₂ + NO consistent with recent <i>ab-initio</i> calculations and experiments <i>R.E. Cornell, E.C. Kane, M.P. Burke</i>
10:25	2A04: Impact of swirl number on the flame dynamics of a swirl-stabilized flame <i>M. Lancaster, D. Davis, J. O'Connor</i>	2B04: Error control methods in neural networks for manifold-based combustion models <i>S.T. Fush, I.J. Bonilla, M.E. Mueller</i>	2C04: Rate coefficients for NO₂ + M ↔ NO + O + M and NO₂ + O ↔ NO + O₂ extracted from shock tube pyrolysis experiments <i>B. Malm, F.M. Haas</i>

10:45 - 11:05 Break – Duke Energy Hall A
10:45 - 11:05 The Research Fellowship Program – Duke Energy Hall B

	IC Engines, Gas Turbines, & Rockets Duke Energy Hall B Session Chair: H. Li	Computationally & Data-Intensive Research Duke Energy Hall C Session Chair: K. Prasad	Laminar Flames 2 Duke Energy Hall D Session Chair: J.H. Mack
11:05	2A05: Flame position and Reynolds number effects on shear layer instabilities in a reacting jet in crossflow <i>S. Garai, A. Chandh, V. Acharya, T.C. Lieuwen</i>	2B05: Kolmogorov–Arnold chemical reaction neural networks learn pressure-dependent kinetic rate laws <i>B.C. Koenig, S. Deng</i>	2C05: Self-excited instabilities in lean premixed inverted conical flames via harmonic balance method <i>G. Schulke, C. Wang, C.M. Douglas</i>
11:25	2A06: Unsteady wake vortices in a jet in crossflow <i>G.N. Narayanam, A. Chandh, V. Acharya, B. Emerson, T. Lieuwen</i>	2B06: On the convergence behavior of linear solvers for stiff chemically reacting systems <i>R.F. Johnson, E.J. Ching</i>	2C06: Early-time extinction of premixed flames induced by transient growth effects <i>M. Napieralski, C. Huete, W. Coenen, V.N. Kurdyumov, C.M. Douglas, M. Sánchez-Sanz, F.A. Williams</i>
11:45	2A07: Development of an optically accessible single sector aero combustor rig for flame imaging at high OPR conditions <i>M. Sony, N. King, M. Kravitz, A. Chandh, R. Mckinney, I. Walters, D. Joshi, Q. Zhang, B. Emerson</i>	2B07: Field estimation with physics-informed neural networks for transient 1D flames <i>A. Kokernak, J. Jayachandran</i>	2C07: Buoyancy-induced stabilization of intrinsically unstable ultra-lean H₂/air flames <i>J. Mathew, J. Jayachandran</i>
12:05	2A08: Modeling conjugate heat transfer within the thermal barrier coating of combustor liners <i>N. Meister, X. Zhao</i>	2B08: A reduced chemical mechanism for large hydrocarbon fuels in scramjet-relevant conditions <i>J. Liu, J. Edwards</i>	2C08: Effects of coflow temperature on conventional to MILD flame transition in non-premixed jet flames <i>A. Sahoo, V. Narayanaswamy, K.M. Lyons</i>

12:25 – 1:30 Lunch – On the Oval Food Hall on Centennial Campus (approximately 2-minute walk from Duke Energy Hall)

	Heterogeneous/Spray & Droplets Duke Energy Hall B Session Chair: R.B. Vishwanath	Diagnostics Duke Energy Hall C Session Chair: A. Sahoo	Reaction Kinetics & Fuels 4 Duke Energy Hall D Session Chair: W. Sun
1:40	2A09: Enhanced chemical reactions of energetic materials with nano-scale silica additives <i>H. Choi, S. Kim, S. Deng</i>	2B09: Towards wildfire detection and characterization using a laser heterodyne radiometer sensor for potassium radiative emissions <i>E.E. McCaughey, J.H. Miller</i>	2C09: Systematic application of new mixture rules affects diverse combustion phenomena ranging from methane to nitroglycerin <i>P.J. Singal, A.F. Rambur, R.E. Cornell, M.P. Burke</i>
2:00	2A10: Altering thermal and chemical mechanisms of energetic materials with carbon additives <i>H. Choi, S. Kim, S. Deng</i>	2B10: 3-D representations for hyperspectral flame tomography <i>N. Tricard, Z. Chen, S. Deng</i>	2C10: Kinetic studies of prompt NO formation of methane at elevated pressures using a novel high pressure well stirred turbulent combustor <i>K. Ri, B. Mei, L. Ji, Y. Cao, T. Fujimori, K. Maruta, Y. Ju</i>
2:20	2A11: Tuning properties of electrically controlled solid propellants with co-oxidizer formulations <i>D. LeFebvre, A. Duran, G. Young</i>	2B11: Use of multispectral infrared imaging to understand gas-phase radiation in a laminar flame <i>C. Clark, M. Cassens, E. Lindemann, P. Richins, J. O'Connor</i>	2C11: Progress towards a high-accuracy kinetic database informed by theoretical and experimental data <i>J.M. Pankauski, J. Lee, C.E. LaGrotta, M.P. Burke</i>
2:40	2A12: Oxidation performance of aluminum powders prepared by electrolytic dealloying <i>Y. Peng, A. Khan, M. Schoenitz, E. Detsi, K.-I. Chintersingh</i>		2C12: Kinetic studies of reaction $\text{NH}_2 + \text{HO}_2$ in a photolysis reactor using time resolved Faraday rotation spectroscopy <i>M. Adil, B. Mei, H. Zhong, Y. Ju</i>
3:00 - 3:20 Break – Duke Energy Hall A			

	Solid Propellant Combustion Duke Energy Hall B Session Chair: P.R. Westmoreland	Computationally & Data-Intensive Research Duke Energy Hall C Session Chair: W. Sun	Turbulent Flames Duke Energy Hall D Session Chair: N. Van Dam
3:20	2A13: A kinetic mechanism for cured hydroxy-terminated polybutadiene <i>T.J. Mallo, A. Dumas, P.R. Westmoreland</i>	2B13: Backdraft experiments and modeling using finite rate kinetics <i>M. Vanella, C. Paul, T. Cleary, R. Falkenstein-Smith</i>	2C13: General transport equation for curvature in premixed reacting flows <i>M.D. Walker, P.A. Satterthwaite, M.E. Mueller</i>
3:40	2A14: Characterization of hydroxyl-terminated polybutadiene decomposition via fast pyrolysis/atmospheric pressure chemical ionization mass spectrometry <i>J.D. Guthrie, K. Myers, M. Romanczyk, C.J. Pfutzner, M. Finn, M.H. Hammond, T.N. Loegel, A. Epshteyn, B. Bojko</i>	2B14: Construction and reduction of a chemical mechanism for JP8 with fire suppressant <i>F. Rijvi, T. Lu, X. Zhao</i>	2C14: Salt-air flows in premixed and non-premixed combustion systems for marine propulsion <i>C. Wildman, N. Van Dam</i>
4:00	2A15: Combustion modeling of solid fuel in an opposed flow burner <i>B.T. Bojko, R. DeBoskey, R.F. Johnson</i>	2B15: Mechanism reduction of ammonia/hydrogen/air combustion leveraging first-principle-derived kinetics <i>L. Wang, Y.-C. Kao, W.H. Green, S. Deng</i>	2C15: On the role of coflow oxygen concentration in non-premixed jet flames from conventional to MILD combustion transition <i>A. Sahoo, V. Narayanaswamy, K.M. Lyons</i>
4:40	2A16: Machine-learned HTPB regression rate models for opposed-flow flames and solid fuel ramjets <i>R. DeBoskey, B. Bojko</i>		2C16: A Cantera based reactor network model for wood stoves: Role of turbulent mixing and thermal inertia <i>L.G. Shankar, P.E. DesJardin</i>
5:00 - 6:00 Industrial Panel – Hunt Library Auditorium			
6:30 - 8:30 Banquet – Park Alumni Center			

Wednesday, March 18, 2026

8:10 - 8:15 **Announcements** – Hunt Library Auditorium (street-level entrance)
Tarek Echekki, Local Host Team, *North Carolina State University*

8:15 - 9:15 **Irv Glassman Young Investigator Lecture** - Hunt Library Auditorium (street-level entrance)
Brian Bojko, *United States Naval Research Laboratory*
Title: Bridging the Gap Between Small-Scale and System-Level Combustion Simulations
Session Chair: Michael Burke

9:15 - 9:25 Transition to Morning Session

	Solid Propellant Combustion Duke Energy Hall B Session Chair: P.R. Westmoreland	Heterogeneous/Spray & Droplets Duke Energy Hall C Session Chair: T. Fang	Detonations & Supersonic Combustion Duke Energy Hall D Session Chair: J. Braun
9:25	3A01: Using mesoparticles with exothermic binders to eject nano aluminum from HTPB <i>E. Hagen, L. Yang, M. Chowdhury, Y. Zhou, A. Kumar, M. Zachariah</i>	3B01: Transcritical combustion of n-heptane under diesel conditions <i>R.C. Kempin, H. Liu, T. Fang</i>	3C01: Numerical investigation of stable and unstable combustion modes in an ethylene-fueled axisymmetric scramjet <i>C. Hash, J. Edwards, M. Trudgian, A. Veeraragavan, T. Lee</i>
9:45	3A02: Toward automating the creation of energetic material kinetic models: Predicting 1,5,9-decatriene pyrolysis in a laminar flow reactor using the reaction mechanism generator <i>J.L. Lansford, C.-C. Chen, R.E. Cornell, C.P. Stone, M.J. McQuaid, J.D. Veals, N. Naser, G.M. Fioroni, R.L. McCormick</i>	3B02: Open air sprays of transcritical and supercritical Jet-A into ambient conditions <i>R.C. Kempin, K.N. Vinod, O. Morris, T. Fang</i>	3C02: Effect of oxygen dilution on downstream flamelet for a dual-injector scramjet combustor <i>A. Tuztas, S.M. Martin, C.A. Velez</i>
10:05	3A03: Polyoxymethylene pyrolysis reactions from reactive molecular dynamics <i>A. Dumas, T.J. Mallo, P.R. Westmoreland</i>	3B03: Spray measurements in a RQL combustor operating with conventional and sustainable fuels at elevated conditions <i>R.B. Vishwanath, E. Douglas, S. Wehe, Y.C. Mazumdar, A. Steinberg, W. Sun</i>	3C03: Revisiting scramjet unstart: Emergence of a global mode <i>A. Essa</i>
10:25	3A04: Progress in understanding the extinction behavior of polymeric fuels <i>D.J. Ramirez, T. Rattanasoontorn, E. Boyer, R. Yetter</i>	3B04: Lobe dynamics in liquefying fuels for hybrid rockets – A source of droplet entrainment <i>E. Katz Ismael, K.L. Budzinski, P.E. DesJardin</i>	3C04: Numerical investigation on the effects of air and nitrous oxide addition to arc-heated scramjet combustion <i>M. Moss, S. Richardson, J. Edwards</i>
10:45	3A05: Influence of sub-surface modeling on LES predictions of solid fuel ramjet combustion <i>R.S. Raj, A. Panchal, S. Menon</i>	3B05: Preferential vaporization effects in manifold modeling of spherically symmetric multicomponent droplets <i>P.A. Satterthwaite, M.E. Mueller</i>	3C05: A one-dimensional model to estimate pressure gain during flame acceleration in smooth channels <i>N. Dexter-Brown, V. Gururajan, J. Jayachandran</i>

11:05 – 11:25 Break – Duke Energy Hall A

	Solid Propellant Combustion Duke Energy Hall B Session Chair: R.E. Cornell	IC Engines, Gas Turbines, & Rockets Duke Energy Hall C Session Chair: C.M. Douglas
11:25	3A06: Study of inert diluent effects on solid fuel combustion in a crossflow burner <i>Y. Prokesch, R. Underwood, G. Young</i>	3B06: An investigation of the combustion process and exhaust emissions from a HD diesel engine operated on n-heptane <i>A. Kutkut, H. Li</i>
11:45	3A07: Direct ink writing of ammonium perchlorate propellants for solid rockets using a dual-cure approach <i>F. Bazzal, C. Smedley, J. Gradle, M.J. Bortner, C.B. Williams, G. Young</i>	3B07: Experimental performance study of ammonia in a gas turbine swirl burner co-fired with a rich hydrogen pilot flame <i>A. Phengsomphone, N.M. Dalton, M.D. Chaudhury, S.V. Ekkad</i>
12:05	3A08: Development of a static test stand for evaluating solid rocket motor fuels, components, and manufacturing techniques <i>J.P. Higgs</i>	3B08: Design and development of a double annular counter rotating swirl injector for a lab-scale gas turbine combustor <i>R.L. Limbaugh, A.T. Shealy, A. Karmarkar, S.H. Won</i>

12:25 – Adjourn

1:00 PM - 3:00 – Optional Lab Tours

We hope to see you at the 15th United States National Combustion Meeting in Boulder, Colorado

2026 EASTERN STATES SPRING TECHNICAL MEETING AUTHOR LISTING

AUTHOR	PAPER#	AUTHOR	PAPER#	AUTHOR	PAPER#	AUTHOR	PAPER#
Acharya, V.	1C10, 2A05, 2A06	Choi, H.	2A09, 2A10	Ferreria, E.M.	1C13	Khan, A.	2A12
Adil, M.	2C12	Chowdhury, M.	3A01	Ferris, A.M.	1C01, 1C05	Kickliter, T.	1C10
Akkerman, V.	1B15	Christie, M.	1A02	Finn, M.	2A14	Kim, S.	2A09, 2A10
Alwahaibi, A.K.	1B07	Clark, C.	1A04, 1A06, 2B11	Fioroni, G.M.	3A02	King, N.	2A07
Amarathunga, D.V.	2B01, 2B02	Cleary, T.	1A10, 2B13	Fujimori, T.	2C10	Knadler, M.S.	1C05
Aryal, H.	1B15	Coenen, W.	2C06	Fush, S.T.	2B04	Koenig, B.C.	1A09, 2B05
Aversa, A.	1B05	Copan, A.V.	1C07, 1C13,	Gallagher, M.	1A13	Koepfinger, T.S.	2B03
Banyon, C.	1C06	Copan, A.V.	1C14, 1C15	Gao, Y.	1B12	Kokernak, A.	2B07
Bathina, S.K.	1A12	Cornell, R.E.	2C03, 2C09, 3A02	Garai, S.	2A05	Kozhumal, S.P.	1C16
Bazzal, F.	3A07	Cross, C.	1C06	Gong, W.	1A14	Kravitz, M.	2A07
Bhattacharjee, A.	1A15, 1A16	Cutler, A.D.	1A05	Gradle, J.	3A07	Krebbbers, L.	1C01
Bidwai, S.	1C02	Dalton, N.M.	3B07	Green, W.H.	2B15	Kumar, A.	3A01
Bojko, B.T.	2A14, 2A15, 2A16	Das, S.K.	1B05, 1B11	Grunenwald, J.	1C11	Kurdyumov, V.N.	2C06
Bonilla, I.J.	1B13, 2B04	Davis, D.	2A04	Gururajan, V.	3C05	Kutkut, A.	3B06
Bortner, M.J.	3A07	De Domenico, F.	1B05	Guthrie, J.D.	2A14	Lacey, C.E.	1B13
Boules, A.	1B11	DeBoskey, R.	2A15, 2A16	Haas, F.M.	2C04	LaGrotta, C.E.	2C11
Boyer, E.	3A04	Dedic, C.E.	1A05, 1A07, 1C12	Hageman, M.D.	1C05	Lancaster, M.	2A04
Braun, J. ...	1A01, 1C08, 1C09, 1C11	Deng, S.	1B02, 1A09, 2B05,	Hagen, E.	3A01	Lance, J.	1C08
Brookins, C.	1A02	.....	2A09, 2A10, 2B10, 2B15	Hammond, M.H.	2A14	Lansford, J.L.	3A02
Budzinski, K.L.	1B16, 3B04	DesJardin, P.E.	1B16, 2C16, 3B04	Harrington, S.	1C09	Lee, J.	2C02, 2C11
Burke, M.P.	2C02, 2C03,	Detsi, E.	2A12	Hash, C.	3C01	Lee, T.	3C01
.....	2C09, 2C11	Dewey, N.S.	1C13	Higgs, J.P.	3A08	LeFebvre, D.	2A11
Burnett, M.	1B14	Dexter-Brown, N.	3C05	Hill, A.W.	1C07, 1C13	Leff, J.	1A01
Camacho, J.R.	2A02	Dhayal, H.	1C03	Hollenbeck, O.	1A15, 1A16	Lewis, S.G.	1C07, 1C13
Cao, Y.	2C10	Douglas, C.M.	2C05, 2C06	Hoque, E.	1B10	Li, C.	1C06
Carlson, D.	1B09	Douglas, E.J.	1C03, 3B03	Huete, C.	2C06	Li, F.	1B10, 1B12
Carroll, A.	1C07	Dryer, F.L.	1B07, 1B14	Jayachandran, J.	2B07,	Li, H.	1B15, 3B06
Cassens, M.	1A04, 1A06, 2B11	Dumas, A.	2A13, 3A03	.....	2C07, 3C05	Lieuwen, T.C.	1C10, 2A05, 2A06
Chandh, A.	2A05, 2A06, 2A07	Duran, A.	2A11	Ji, L.	2C10	Limbaugh, R.L.	2A01, 3B08
Charney, J.	1A13	Ebensperge, F.	1A11	Jin, B.	1B12	Lindemann, E.	2B11
Chaudhury, M.D.	3B07	Echekki, T.	2B01, 2B02	Johnson, R.F.	2B06, 2A15	Liu, H.	3B01
Cheekatamarla, P.	1B15	Edwards, J.R.	2B03, 2B08,	Joshi, D.	2A07	Liu, J.	2B08
Chen Mazumdar, Y.	3B03	.....	3C01, 3C04	Ju, Y.	1B08, 2C10, 2C12	Loegel, T.N.	2A14
Chen, C.-C.	3A02	Ekkad, S.V.	3B07	Kamal, C.A.	1C05	Loza, J.	1B09
Chen, C.-H.	1B09	Emerson, B.	2A06, 2A07	Kane, E.C.	2C02, 2C03	Lu, T.	2B14
Chen, J.	1B02	Epshteyn, A.	2A14	Kao, Y.-C.	2B15	Lynch, S.	1A04
Chen, Z.	2B10	Essa, A.	3C03	Karmarkar, A.	2A01, 3B08	Lyons, K.M.	2C08, 2C15
Ching, E.J.	2B06	Falkenstein-Smith, R.	1A10, 2B13	Katz Ismael, E.	3B04	Mack, J.H.	1B05, 1B11
Chintersingh, K.-I.	2A12	Fang, T.	3B01, 3B02	Kempin, R.C.	3B01, 3B02	Mallo, T.J.	2A13, 3A03

Malm, B.	2C04	Pankauski, J.M.	2C11	Smedley, C.	3A07	Won, S.H.	1B07, 1B14,
Manouchehri, M.	2C01	Parmar, B.	1B15	Smith, T.N.	1C13, 1C14	.....	2A01, 3B08
Martin, S.M.	3C02	Paul, C.	1A10, 2B13	Sony, M.	2A07	Xi, X.	1A11, 1A15, 1A16
Maruta, K.	2C10	Peng, Y.	2A12	Steinberg, A.	1C03, 3B03	Yang, L.	3A01
Marvin, S.A.	1C13	Petito, O.T.	1A05	Stevenson, A.L.	1A07	Yannuwar, S.	2B02
Mathew, J.	2C07	Pfutzner, C.J.	2A14	Stigliano, W.	1C09, 1C11	Yetter, R.	3A04
Mathews, G.	1A06	Phengsomphone, A.	3B07	Stone, C.P.	3A02	Yoon, M.K.	1B07
Mazumdar, Y.C.	1A02,	Pinto, P.E.	1A08	Sultan, I.	1B12	Young, G.	2A11, 3A06, 3A07
.....	1C03, 3B03	Poole, S.	1C12	Sun, W.	1C03, 1C06, 3B03	Zachariah, M.	3A01
McCaughey, E.E.	2B09	Prasad, K.	1A13	Sunderland, P.B.	1B04, 1B06	Zhang, Q.	2A07
McCormick, R.L.	3A02	Prokesch, Y.	3A06	Thomsen, M.	1A08	Zhang, Y.	1B11
McCutchan, A.	1A13	Radyjowski, P.	1B09	Tidwell, I.	1C10	Zhao, X.	1A03, 2A08, 2B14
Mckinney, R.	2A07	Raj, R.S.	3A05	Trelles, J.P.	1B11	Zheng, Y.	1B04, 1B06
McQuaid, M.J.	3A02	Ram, H.	1C04	Tricard, N.	1B02, 2B10	Zhong, H.	2C12
Meadows, J.W.	1B01	Rambur, A.F.	2C09	Trinidad, D.G.	1B05, 1B11	Zhou, Y.	3A01
Mei, B.	2C10, 2C12	Ramirez, D.J.	3A04	Trudgian, M.	3C01	Zhu, L.	1A12
Meister, N.	2A08	Rao, P.	1B09	Tuztas, A.	3C02		
Menon, S.	3A05	Rattanasoontorn, T.	3A04	Uma, J.	2A02		
Metro, A.J.	1A05	Rhisat, F.N.	1B01	Underwood, R.	3A06		
Miao, M.	1B10	Ri, K.	2C10	Urban, J.L.	1A08, 1A12,		
Michael, J.B.	1C02	Richardson, S.	3C04	Urban, J.L.	1A15, 1A16		
Miller, J.H.	2B09	Richins, P.	1A04, 1A06, 2B11	Valdivia, J.	1A15, 1A16		
Mohd Rozaidin, U.I.	1B15	Rijvi, F.	2B14	Van Dam, N.	2C14		
Moore, D.A.	1C07, 1C13, 1C14	Romanczyk, M.	2A14	Vanella, M.	2B13		
Morris, O.	3B02	Rotavera, B.	1C07, 1C13,	Veals, J.D.	3A02		
Moss, M.	3C04	.....	1C14, 1C15	Veeraragavan, A.	3C01		
Mueller, E.	1A13	Roy, S.	1B04	Velez, C.A.	3C02		
Mueller, M.E.	1B13, 2A03,	Rzepka, S.L.	2A03	Vinod, K.N.	3B02		
.....	2B04, 2C13, 3B05	Saad, M.	1C16	Vishwanath, R.B.	1C03, 3B03		
Muniraj, N.	1A14	Sahoo, A.	2C08, 2C15	Walker, M.D.	2C13		
Myers, K.	2A14	Sánchez-Sanz, M.	2C06	Walters, I.	2A07		
Napieralski, M.	2C06	Satterthwaite, P.A.	2C13, 3B05	Wang, C.	2C05		
Narayanam, G.N.	2A06	Sawaya, S.M.	1C12	Wang, L.	1B02, 2B15		
Narayanaswamy, V.	2C08, 2C15	Schoenitz, M.	2A12	Wang, W.	1A03		
Naser, N.	3A02	Schulke, G.	2C05	Wehe, S.	3B03		
Nawaz, B.	1B11	Selvaraj, M.K.	1A14	Welch, M.A.	1C02		
Novak, M.	1C12	Sezer, H.	1C16	Westmoreland, P.R.	1C04, 2C01,		
O'Connor, J.	1A04, 1A06,	Shankar, L.G.	2C16	.....	2A13, 3A03		
.....	2A02, 2A04, 2B11	Shealy, A.T.	2A01, 3B08	Wijeyakulasuriya, S.	1B15		
Onifade, R.A.	1C02	Shi, Z.	1B08	Wildman, C.	2C14		
Padmanabhan, S.	1A02	Simeoni, A.	1A11, 1A14	Williams, C.B.	3A07		
Panchal, A.	3A05	Singal, P.J.	2C09	Williams, F.A.	2C06		