2020 SPRING TECHNICAL MEETING
EASTERN STATES SECTIONS OF THE COMBUSTION INSTITUTE
The University of South Carolina
Columbia, South Carolina
March 8-11, 2020

Sunday, March 8, 2020

15:00 – 17:00 **ESSCI Executive Board Meeting,** University of South Carolina McNair Aerospace Center, Board Room
18:00 – 20:00 **Welcome Reception, Liberty Tap Room**

Monday, March 9, 2020

7:00 – 18:00 **Registration,** University of South Carolina Alumni Center - Lobby
8:30 – 8:50 **Welcome Remarks/Announcements**
Hossein Haj-Hariri, Dean, *College of Engineering and Computing, The University of South Carolina*

8:50 – 9:45 **University of South Carolina Alumni Center – Grand Ballroom**
Plenary Lecture: Chris Shaddix, *Sandia National Laboratories*
Title: *Pasteur's Quadrant and Fundamental Insights into Oxyfuel Combustion*
Session Chair: Sang Hee Won, *University of South Carolina*

9:45 – 10:00 Break

	Reaction Kinetics **Ballroom 1** **Session Chair: M.P. Burke**	**Fire Research** **Ballroom 2** **Session Chair: F. Haas**	**Laminar Flames** **Ballroom 3** **Session Chair: Y. Wu**
10:10	**1A01**: **The effect of hot radical reactions in the low-temperature oxidation of diethyl ether** *A.D. Danilack[1], S.J. Klippenstein[2], Y. Georgievskii[2], C.F. Goldsmith[1]* *[1]Brown University* *[2]Argonne National Laboratory*	**1B01: Computed operational envelopes for avoiding spontaneous ignition of methane-containing gases** *M. Barhoumi, F.M. Haas* *Rowan University*	**1C01: Effects of carbon dioxide on laminar burning speed and flame instability of isobutane air mixture at high temperature and pressures** *Z. Wang, Z. Lu, S.C. Yelishala, H. Metghalchi, Y.A. Levendis* *Northeastern University*
10:30	**1A02: Reaction mechanisms of a cyclic ether intermediate: *cis*-2,3-dimethyloxirane** *B. Rotavera[1], M. Christianson[1], A. Doner[1], M.M. Davis[1], A.L. Koritzke[1], J.M. Turney[1], H.F. Schaeffer III[1], L. Sheps[2], D.L. Osborn[2], C.A. Taatjes[2]* *[1]University of Georgia* *[2]Sandia National Laboratories*	**1B02: Methane-induced explosions in cylindrical vented enclosures** *H. Sezer[1], S. Ogunfuye[2], J. Hashempour[3], V. Akkerman[2]* *[1]Western Carolina University* *[2]West Virginia University* *[3]University of North Carolina*	**1C02: Kinetic similarity between extinction strain rate and laminar flame speed** *W. Ji[1], T. Yang[2], Z. Ren[2], S. Deng[1]* *[1]Massachusetts Institute of Technology* *[2]Tsinghua University*

	Reaction Kinetics Ballroom 1 Session Chair: M.P. Burke	Fire Research Ballroom 2 Session Chair: F. Haas	Laminar Flames Ballroom 3 Session Chair: Y. Wu
10:50	**1A03: Dioxane ring formation during xylan torrefaction** *A. Bose, P.R. Westmoreland* *North Carolina State University*	**1B03: The effects of obstructions and gas compressibility on a fire scenario in a coalmining passage** *F. Kodakoglu, L. Kareem, V. Akkerman* *West Virginia University*	**1C03: Local statistics of Darrieus-Landau instability in laminar expanding flames** *Z. Liu[1], V.R. Unni[2], S. Chaudhuri[3], C.K. Law[1], A. Saha[2]* *[1]Princeton University* *[2]University of California San Diego* *[3]University of Toronto*
11:10	**1A04: Nonthermal reactions: The final frontier in understanding the kinetics of hydrogen oxidation** *Y. Tao[1], S.J. Klippenstein[1], Y. Georgievskii[1], J.A. Miller[1], L. Lei[2], M.P. Burke[2], A.W. Jasper[1], R. Sivaramakrishnan[1]* *[1]Argonne National Laboratory* *[2]Columbia University*	**1B04: Estimating flammability limits using predictive modeling of laminar flame speeds** *V. Mascarenhas, P.R. Westmoreland* *North Carolina State University*	**1C04: Determination of laminar flame speed of methane by optical analysis: Experimental setup and results** *C. Ulishney[1], J. Liu[2], C. Dumitrescu[1]* *[1]West Virginia University* *[2]Purdue University*
11:30	**1A05: Plug flow reactor network model for high pressure combustor with after-burner capability** *A. Kumar, B. Hugger, J.W. Meadows* *Virginia Tech*	**1B05: Combustion characteristics of difluoromethane- and 2,3,3,3-tetrafluoropropene/air mixtures** *P. Papas* *United Technologies Research Center*	**1C05: Impact of fuel nonequidiffusivity and wall conditions on premixed flame propagation in channels with open ends** *O. Abidakun[1], A. Adebiyi[1], D. Valiev[2], V. Akkerman[1]* *[1]West Virginia University* *[2]Tsinghua University*

11:50 – 12:50 **Lunch**

11:50 – 12:50 **Graduate Student Workshop – Ballroom 1**
Moderator: Tanvir Farouk, *University of South Carolina*

12:50 – 13:50 **University of South Carolina Alumni Center – Ballroom 1**
Plenary Lecture: Derek Splitter, Oak Ridge National Laboratory
Title: *Pressure-Temperature Domain Analysis for Insight into Autoignition Events in SI Engines*
Session Chair: Tanvir Farouk, *University of South Carolina*

13:55 – 14:00 Transition to Afternoon Sessions

	Applied Combustion/Diagnostics Ballroom 1 Session Chair: A. Karmarkar	Turbulent Flames Ballroom 2 Session Chair: C. Dedic	Novel Combustion Techniques Ballroom 3 Session Chair: S. Deng
14:00	**1A06: Hybrid fs/ps CARS system for counterflow flame investigation** *C.M. Geipel, A.H. Rauch, H.K. Chelliah, C.E. Dedic* *University of Virginia*	**1B06: In-Situ Adaptive Manifolds: Enabling simulations of complex turbulent reacting flows** *C.E. Lacey, A.G. Novoselov, M.E. Mueller* *Princeton University*	**1C06: KiNet: A deep neural network representation of chemical kinetics** *W. Ji, S. Deng* *Massachusetts Institute of Technology*
14:20	**1A07: Assessment of turbulence models for simulating confined swirling flows** *J. Toumey[1], P. Zhang[1], R. Hadef[2], X. Zhao[1]* *[1]University of Connecticut* *[2]Larbi Ben M'hidi University*	**1B07: A novel framework for experiment-based turbulent combustion modeling** *R. Ranade, T. Echekki* *North Carolina State University*	**1C07: Dynamics of laminar ethylene lifted flame with ozone addition** *B. Wu[1], M. Hastings[1], Z. Wang[2], W. Sun[1]* *[1]Georgia Institute of Technology* *[2]Chongqing University*
14:40		**1B08: Closure modeling for the conditional momentum equation in low Karlovitz number turbulent premixed flames** *J. Lee, M.E. Mueller* *Princeton University*	**1C08: Homogeneous ignition of syngas over palladium at pressures 1-8 bar** *R. Sui[1], J. Mantzaras[2], C.K. Law[1], R. Bombach[2]* *[1]Princeton University* *[2]Paul Scherrer Institute*
15:00 – 15:30	**BREAK**		
	Reaction Kinetics Ballroom 1 Session Chair: B. Rotavera	**Turbulent Flames Ballroom 2 Session Chair: M.E. Mueller**	**Novel Combustion Techniques Ballroom 3 Session Chair: J. Meadows**
15:30	**1A09: Shock tube autoignition delay study of ammonia** *Y. Peng, M. Karimi, D. Ranjan, W. Sun* *Georgia Institute of Technology*	**1B09: Multi-modal manifold-based modeling of turbulent lifted flames** *A.G. Novoselov, C.E. Lacey, M.E. Mueller* *Princeton University*	**1C09: Pressure dependence of catalytic oxidation of propane over rhodium** *R. Sui[1], J. Mantzaras[2], C.K. Law[1], R. Bombach[2]* *[1]Princeton University* *[2]Paul Scherrer Institute*

	Reaction Kinetics Ballroom 1 Session Chair: B. Rotavera	Turbulent Flames Ballroom 2 Session Chair: M.E. Mueller	Novel Combustion Techniques Ballroom 3 Session Chair: J. Meadows
15:50	**1A10: Methyl butene isomers ignition inside a shock tube** *F. Arafin, A. Laich, E. Ninnemann, R. Greene, R.K. Rahman, S.S. Vasu* *University of Central Florida*	**1B10: Impact of air splits in a dual-stream swirler on fuel-air mixing and thermoacoustic instability in a swirl stabilized high pressure combustor** *A. Karmarkar[1], J. Yoon[2], I. Boxx[2], J. O'Connor[1]* *[1]Pennsylvania State University* *[2]German Aerospace Centre (DLR)*	**1C10: Simulation of methanol-air hydrothermal flames during supercritical water oxidation: Impact of kinetic parameters** *S. Saha, T. Farouk* *University of South Carolina*
16:10	**1A11: Automated generation of detailed kinetic models for the combustion of Hydrofluorocarbon (HFC) refrigerants using the reaction mechanism generator** *D. Farina Jr., N.D. Harms, S.K. Sirumalla, R.H. West* *Northeastern University*	**1B11: Soot temperature distributions in a turbulent non-premixed ethylene jet flame** *C.R. Shaddix, J. Zhang, T.C. Williams* *Sandia National Laboratories*	**1C11: Effect of fuel inhomogeneity in 2-D simulation of a Rotating Detonation Combustor (RDC)** *P. Raj, J. Meadows* *Virginia Tech*

17:00 – 19:00 **Career Development Mentor-Mentee Workshop – Ballroom 1**
Hosted by Jacqueline O'Connor, *Pennsylvania State University* and Perrine Pepiot, *Cornell University*

19:00 – 20:00 **Early Career Faculty Mixer – Liberty Tap Room**

Tuesday, March 10, 2020

8:00 – 16:00 **Registration,** University of South Carolina Alumni Center - Lobby

8:20 – 8:30 **Welcome Remarks,** University of South Carolina Alumni Center – Grand Ballroom
Jamil Khan, Chair, *Department of Mechanical Engineering, The University of South Carolina*
Announcements, Paul Papas, Sang Hee Won, Tanvir Farouk

8:30 – 9:30 **University of South Carolina Alumni Center – Grand Ballroom**
Plenary Lecture: Hasan Karim, General Electric Power and Water
Title: *Impact of Changing Landscape of Power Generation on Innovations in Gas Turbines*
Session Chair: Sang Hee Won, *University of South Carolina*

9:30 – 9:40 Transition to Morning Sessions

	Reaction Kinetics **Ballroom 1** **Session Chair: C.-J. Sung**	**Alternative Fuels/Emissions** **Ballroom 2** **Session Chair: J. Meadows**	**Heterogeneous Combustion** **Ballroom 3** **Session Chair: W. Sun**
9:40	**2A01: Effect of trace amount nitric oxide addition on iso-octane autoignition: Experiment and modeling** *R. Fang[1], C. Saggese[2], S.W. Wagnon[2], G. Kukkadapu[2], W.J. Pitz[2], C.-J. Sung[1]* *[1]University of Connecticut* *[2]Lawrence Livermore National Laboratory*	**2B01**: **Prediction of research/motor octane number and octane sensitivity using artificial neural networks** *T.J. Kessler[1], C. Hudson[2], L. Whitmore[3], J.H. Mack[1]* *[1]University of Massachusetts Lowell* *[2]Sandia National Laboratories* *[3]University of Washington*	**2C01: Burn rate and micro-explosion of colloidal droplets of carbon-based nanoparticles in water-in-oil emulsions** *L. Festa, C. Hefner, M. Ghamari* *Wilkes University*
10:00	**2A02: An analysis of NO production via the N_2O + O channel** *M.C. Barbet[1], R.E. Cornell[1], F.M. Haas[2], M.P. Burke[1]* *[1]Columbia University* *[2]Rowan University*	**2B02**: **Impact of side-chain structure of cycloalkanes on ignition propensity measured as Derived Cetane Number** *D. Carpenter, S. Nates, F.L. Dryer, S.H. Won* *University of South Carolina*	**2C02**: **Assessment of discrete-phase models to be employed for modeling coal particle feeding in a Staged, Pressurized Oxy-fuel Combustor (SPOC)** *A. Islas, A. Pokharel, V. Akkerman, Z. Yang, R.L. Axelbaum* *West Virginia University*
10:20	**2A03: Towards resolution of lingering discrepancies in the H_2O_2 decomposition system: HO_2 + HO_2** *C.E. LaGrotta[1], L. Lei[1], M.C. Barbet[1], Z. Hong[2], D.F. Davidson[3], R.K. Hanson[3], M.P. Burke[1]* *[1]Columbia University* *[2]National Research Council of Canada* *[3]Stanford University*	**2B03: An investigation into the potential of biomass derived fusel alcohol mixtures for improved engine performance** *L. Behnke[1], E. Monroe[2], A. Landera[2], R.W. Davis[2], A. George[2], K. Opacich[1], J. Heyne[1]* *[1]University of Dayton* *[2]Sandia National Laboratories*	**2C03: Impacts of autoignition and vaporization characteristics on flashback behaviors of liquid fuels** *S.J. Lim, A.K. Alwahaibi, S.H. Won, F.L. Dryer* *University of South Carolina*

10:40 – 10:50	**BREAK**		
	Reaction Kinetics **Ballroom 1** **Session Chair: P. Pepiot**	**Alternative Fuels/Emissions** **Ballroom 2** **Session Chair: B. Rotavera**	**Fire Research** **Ballroom 3** **Session Chair: F. Haas**
10:50	**2A04: Accurate prediction of secondary chemical processes in pre-partitioned adaptive chemistry** *P. Sharma, P. Pepiot* *Cornell University*	**2B04: Impacts of syngas composition on its combustion characteristics in micro-channels** *S. Pokharel[1], V. Akkerman[1], M. Ayoobi[2]* *[1]West Virginia University* *[2]Wayne State University*	**2C04: On the modeling of mass loss rate of interacting rectangular pool fires using Fire Dynamic Simulator (FDS)** *P. Mohammadpour[1], J. Hashempour[1], H. Sezer[2]* *[1]University of North Carolina* *[2]Western Carolina University*
11:10	**2A05: An error-controlled pre-partitioned adaptive chemistry methodology for accelerating particle PDF methods** *A.S. Newale, S.B. Pope, P. Pepiot* *Cornell University*	**2B05: A GCxGC tier alpha and combustor figure-of-merit approach on sustainable aviation fuels prescreening** *Z. Yang, J. Heyne* *University of Dayton*	**2C05: Microgravity observations of a burning emulator to investigate material flammability** *P. Dehghani[1], E. Auth[1], C. Cui[1], D.P. Stocker[2], J.L. deRis[1], P.B. Sunderland[1], J.G. Quintiere[1]* *[1]University of Maryland* *[2]NASA Glenn Research Center*
11:20	**2A06: Understanding the distinct kinetics of chemically termolecular reactions across various pressures** *L. Lei, M.P. Burke* *Columbia University*	**2B06: Electric field assisted reduction of NO_x emission: A numerical study** *S.F. Ahmed[1], A.C. Aghdam[1], J. Pleis[2], R. Geiger[2], T. Farouk[1]* *[1]University of South Carolina* *[2]ClearSign Combustion Corporation*	**2C06: Prediction of drag coefficient and Nusselt number for flow through vegetation at high Reynolds numbers using the Lattice Boltzmann Method** *H. Sezer[1], S.P. Kozhumal[2], A. Simeoni[3]* *[1]Western Carolina University* *[2]Eastern Kentucky University* *[3]Worcester Polytechnic Institute*
11:40	**2A07: Experimentally testing the performance of small molecule chemistry relevant to energetic materials** *R.E. Cornell[1,2], M.C. Barbet[1], M.P. Burke[1]* *[1]Columbia University* *[2]CCDC Armaments Center*	**2B07: High-performance jet fuel optimization and aircraft performance analysis considering O-ring volume swell** *S. Kosir[1], J. Heyne[1], M. Kirby[2]* *[1]University of Dayton* *[2]Georgia Institute of Technology*	**2C07: A data based approach for soot prediction in a laminar diffusion flame** *J.N. Squeo, X. Zhao* *University of Connecticut*
12:00 – 13:00	**Lunch**		
13:00 – 13:55	**University of South Carolina Alumni Center – Ballroom 1** **Irv Glassman Young Investigator Lecture:** Xinyu Zhao, University of Connecticut **Title:** *Local extinction and its role in global flame propagation* **Session Chair:** Paul Papas, *United Technologies Research Center*		

13:55 – 14:00 Transition to Afternoon Sessions			
	Irvin Glassman Memorial Session **Ballroom 1** **Session Chair: P. Papas**	**Laminar Flames** **Ballroom 2** **Session Chair: Y. Ju**	**Fire Research** **Ballroom 3** **Session Chair: P. Sunderland**
14:00	**2A08: Memorial Resolution: A Tribute to Irvin Glassman** *F.L. Dryer[1], C.K. Law[2], W.A. Sirignano[3], F.A. Williams[4]* *[1]University of South Carolina* *[2]Princeton University* *[3]University of California at Irvine* *[4]University of California at San Diego*	**2B08: Numerical study on the burning of methanol fed porous sphere using short chemical kinetics mechanism** *S. Nair[1,2], V. Raghavan[1]* *[1]Indian Institute of Technology Madras* *[2]Worcester Polytechnic Institute*	**2C08: Simulations of the unsteady response of biomass burning particles exposed to oscillatory heat flux conditions** *M.M. Ahmed, A. Trouvé* *University of Maryland*
14:20	**2A09: Some Reflections on Irv Glassman, his Life and Legacy** *Frederick L. Dryer* *University of South Carolina*	**2B09: An experimental and modeling study of NO effect on flame dynamics of *n*-dodecane cool and warm diffusion flame** *M. Zhou[1,2], O.R. Yehia[1], C.B. Reuter[1], C.M. Burger[1], Y. Murakami[1], H. Zhao[1], Y. Ju[1]* *[1]Princeton University* *[2]Wuhan University of Technology*	**2C09: The unsteady response of radiating laminar diffusion flames exposed to decreasing mixing rate conditions representative of fires** *R. Xu[1], V.M. Le[2], A. Marchand[1], T. Rogaume[2], F. Richard[2], J. Luche[2], A. Trouvé[1]* *[1]University of Maryland* *[2]Institut PPRIME, Poitiers University (UPR 3346 CNRS)*
14:40	**2A10: Effect of vitiation on flow reactor studies of pyrolysis and oxidation of jet fuels: Jet A and JP 10** *C. Thomas Bowman* *Stanford University*	**2B10: A second-order dynamic adaptive hybrid scheme for time-integration of stiff chemistry** *Y. Wu, Y. Gao, T. Lu* *University of Connecticut*	**2C10: Simulations of the coupling between combustion and radiation in a turbulent line fire using an unsteady flamelet model** *R. Xu[1], V.M. Le[2], A. Marchand[1], S. Verma[1], T. Rogaume[2], F. Richard[2], J. Luche[2], A. Trouvé[1]* *[1]University of Maryland* *[2]Institut PPRIME, Poitiers University (UPR 3346 CNRS)*
15:00	**2A11: Irvin Glassman's contributions to our understanding of soot formation** *Robert J. Santoro* *Pennsylvania State University*		
15:20 – 15:40	**BREAK**		

	Irvin Glassman Memorial Session Ballroom 1 Session Chair: C. Shaddix	Turbulent Flames/Novel Combustion Ballroom 2 Session Chair: X. Zhao	Reaction Kinetics Ballroom 3 Session Chair: S. Deng
15:40	**2A12: Glassman's criterion** *Richard Yetter* *Pennsylvania State University*	**2B12: Plasma-assisted Dry Methane Reforming for syngas production** *H. Pearlman[1], M. Giles[1], C.-H. Chen[1], M. Demydovych[1], D. Kiani[2], J. Baltrusaitis[2]* *[1]Advanced Cooling Technologies Inc.* *[2]Lehigh University*	**2C12: A data-based hybrid model for complex fuel combustion using PCA and ANN** *S. Alqahtani[1, 2], T. Echekki[1]* *[1]North Carolina State University* *[2]King Khalid University*
16:00	**2A13: From qualitative studies on sooting heights of the late '70s to quantitative studies on soot (inception) in the past decade** *Alessandro Gomez* *Yale University*	**2B13: Computational study of oxy-combustion of a two-phase fuel consisting of pulverized coal and methane at elevated pressure** *G. Udochukwu, A. Pokharel, A.I. Montero, V. Akkerman* *West Virginia University*	**2C13: Studies of nonpremixed cool flames stabilized by autoignition** *Y. Murakami[1,2], C.B. Reuter[1], O.R. Yehia[1], Y. Ju[1]* *[1]Princeton University* *[2]Tohoku University*
16:20	**2A14: Critical properties of synthetic jet fuels that ensure combustor operability; Key findings of the NJFCP** *Meredith B. Colket* *Retired, United Technologies Research Center*	**2B14: Direct numerical simulation of a turbulent premixed flame kernel** *P. Meagher, X. Zhao* *University of Connecticut*	**2C14: Combustion and flame analysis of byproduct fuel mixture with high CO_2 dilution from the CL-ODH process of ethane to ethylene conversion** *K.N. Vinod, M. Gore, A. Lee, L. Neal, F. Li, T. Fang* *North Carolina State University*
16:40 – 17:40	**Glassman Academic Tree Event (*All welcome to attend*)– Ballroom 1** **Hosted by** Frederick L. Dryer, *University of South Carolina* and Paul Papas, *United Technologies Research Center*		
17:45– 18:15	**ESSCI General Member Meeting (*All welcome to attend*) – Ballroom 1**		
18:00 – 19:00	**Cocktail Hour**		
19:00 – 22:00	**ESSCI Banquet**		

Wednesday, March 11, 2020

8:20 – 8:30 **Announcements -** University of South Carolina Alumni Center – Grand Ballroom
Paul Papas, Sang Hee Won, Tanvir Farouk

8:30 – 9:30 **University of South Carolina Alumni Center** – Grand Ballroom
Plenary Lecture: Dr. John Monnier, University of South Carolina
Title: *The selective epoxidation of olefins using molecular O_2. An exercise in catalyst design and process control*
Session Chair: Tanvir Farouk, *University of South Carolina*

9:30 – 9:40 Transition to Morning Session

	Heterogenous/Applied Combustion **Ballroom 1** **Session Chair: J.A. Palmore Jr.**	**Fire** **Ballroom 2** **Session Chair: S. Nair**	**Laminar Flames/Reaction Kinetics** **Ballroom 3** **Session Chair: V. Akkerman**
9:40	**3A01: Method to study effect of straining flow on droplet vaporization at low Reynolds number** *M. Setiya, J.A. Palmore Jr.* *Virginia Tech*	**3B01: Numerical investigation of heat transfer and gypsum calcination under fire exposure** *E.A. Fowlie[1], H. Sezer[2], G.E. Gorbett[1], S.P. Kozhumal[1]* *[1]Eastern Kentucky University* *[2]Western Carolina University*	**3C01: The sensitivity of chemical kinetic models on flame transfer functions in acoustic fluctuation environments with varying equivalence ratios** *A. Girdhar, V. Acharya, W. Sun* *Georgia Institute of Technology*
10:00	**3A02: High Stokes number droplets in homogeneous isotropic turbulent flow** *C. Miranda, J. Palmore Jr.* *Virginia Tech*	**3B02: Investigating flammability properties of cork using cone calorimeter** *B. Bahrani[1], J. Hashempour[2]* *[1]North Carolina Agriculture & Technical State University* *[2]University of North Carolina*	**3C02: Systematic generation and efficient solution of reactor network models** *Y. Wu, T. Lu* *University of Connecticut*
	Heterogenous/Applied Combustion **Ballroom 1** **Session Chair: J.A. Palmore Jr.**	**Fire** **Ballroom 2** **Session Chair: S. Nair**	**Laminar Flames/Reaction Kinetics** **Ballroom 3** **Session Chair: V. Akkerman**
10:20	**3A03: Development of high-fidelity numerical models for supercritical CO_2 oxy-combustion** *K. Davis[1], D. Wang[1], A. Chiodo[1], M. Cremer[1], S.H. Won[2], T. Farouk[2], F. Dryer[2]* *[1]Reaction Engineering International* *[2]University of South Carolina*	**3B03: Modelling fire spread for dowel array using mass transfer number model** *G. Di Cristina[1], A. Simeoni[2], N. Skowronski[3], A. Rangwala[2], S.-K. Im[1,4]* *[1]University of Notre Dame* *[2]Worcester Polytechnic Institute* *[3]USDA Forest Service* *[4]Korea University*	**3C03: Computational study of the oscillation-to-acceleration transition of low Lewis number flames in obstructed channels with open ends** *O. Abidakun, A. Adebiyi, D. Valiev, V. Akkerman* *West Virginia University*

10:40 **Adjourn**
12:30 – 14:30 **McNair Aerospace Center Lab Tour**