

## TECHNICAL PROGRAM SCHEDULE

MONDAY, 11 December 2017									
8:45	<b>Opening Ceremony</b>								
9:00	<b>Bilger Lecture:</b> High Pressure Turbulent Combustion Research at KAUST, <i>Professor William L. Roberts</i> Chair: Professor Assaad Masri Auditorium B2010								
Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Yi Yang</i>	<b>Turbulent Flames</b> <i>Professor Shenqiang (Steven) Shy</i>	<b>IC-Engines</b> <i>Professor Choongsik Bae</i>	<b>Reaction Kinetics</b> <i>Professor John Mackie</i>	<b>Soot, PAH &amp; Material Synthesis</b> <i>Professor Brian Haynes</i>	<b>Fires</b> <i>Dr Long Shi</i>	<b>Detonations &amp; Explosions</b> <i>Professor Remy Mevel</i>	<b>Spray, Droplets &amp; Supercritical</b> <i>Professor Bassam Dally</i>	<b>Solid Fuels</b> <i>Professor Hiroaki Wanatabe</i>
10:00	P012: Laminar Burning Characteristics of 2-Methyltetrahydrofuran Compared with 2-Methylfuran and Isooctane <i>Xiangshan Fan, Kangkang Yang, Ximing Jiao, Jingshan Wang, Zhiyi Guo, Xibin Wang, Xiaomin Wu</i>	P168: Using Sparse-Lagrangian MMC-LES to Simulate Swirling Jets and Flames <i>Z. Huo, F. Salehi, M.J. Cleary, A.R. Masri</i>	P014: A Practical Gasoline Homogeneous Charge Compression Ignition (HCCI) Engine <i>Anand Lalwani, Swapnil Awate, Arindrajit Chowdhury, Sheshadri Sreedhara</i>	P057: The effect of EGR on ignition characteristics of gasoline under lean burn conditions <i>Masaki Naruke, Shoichi Yoshida, Yuusuke Wachi, Kotaro Tanaka, Mitsuru Konno</i>	P020: The Influence of Reynolds Number on Soot Concentration in Turbulent Non-premixed Jet Flames <i>S.M. Mahmoud, G.J. Nathan, Z.T. Alwahabi, Z.W. Sun, P.R. Medwell, B.B. Dally</i>	P019: Theoretical Analysis of Fire Development in a closed Compartment <i>Vasily Novozhilov</i>	P258: Observation of Different Self-ignition Features of High Pressurized Hydrogen Released through a Tube <i>Hyoung Jin Lee, Sang Yoon Lee, In-Seuck Jeung</i>	P011: Influence of spray impingement on fuel combustion and emissions <i>Tianyu Ma, Haifeng Liu, Hu wang, Lei feng, Mingfa Yao</i>	P013: Online multi-point LIBS measurement on sodium release during the combustion of Zhundong coal and coal/additive blends <i>Yingzu Liu, Zhihua Wang, Kaidi Wan, Yu Lv, Yong He, Jun Xia, Kefa Cen</i>

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10:20	P017: Effect of radiation reabsorption on NO formation in premixed H <sub>2</sub> /CO/air counterflow flames <i>Daoguan Ning, Bin Yao, Aiwu Fan</i>	P302: Genesis and Evolution of Premixed Flames in Turbulence <i>Himanshu L. Dave, Abinesh M., Swetaprovo Chaudhuri</i>	P015: The Effect of Butanol-Acetone Mixture-Cottonseed Biodiesel Blend on Spray Characteristics, Engine Performance and Emissions in Diesel Engine <i>Sattar Jabbar Murad Algayyim, Andrew P. Wandel, Talal Yusaf</i>	P071: Kinetics of Hydrogen Abstraction and Addition Reactions of 3-Hexene by OH Radical <i>Feiyu Yang, Wuchuan Sun, Youshun Pan, Fuquan Deng, Xue Jiang, Yingjia Zhang, Zuohua Huang</i>	P066: Effect of reforming catalyst physicochemical properties on the reaction of hydrocarbon fuel <i>Xiaoxiong Zhang, Lingyun Hou, Dingrui Zhang</i>	P043: Suitable pyrolysis model for physics-based bushfire simulation <i>Rahul Wadhvani, Duncan Sutherland, Khalid Moinuddin</i>	P034: A Spectral Radius Scaling Semi-Implicit Temporal Scheme for Compressible Reacting Flow with Detailed Chemistry <i>Qing Xie, Zhuyin Ren</i>	P089: Experimental study on droplets diameter and velocity distribution of liquid jet with a cavity in supersonic crossflow <i>Chenyang Li, Yuanhao Zhu, Jiaqi Zhang, Qinglian Li</i>	P044: Study of combustion of brown coal using the ReaxFF reactive force field <i>Longzhen Guo, Liping Chen, Chongna Wo, Zhijun Zhou</i>
10:40	P018: Computed NO Emission Characteristics of CH <sub>4</sub> /NH <sub>3</sub> and H <sub>2</sub> /NH <sub>3</sub> Opposed Jet Diffusion Flames <i>Kai-Chieh Chia, Hsin-Yi Shih, Yin-Cheng Ko</i>	P159: Effects of mixing and reaction timescales on LES/PDF simulations of a turbulent lean premixed jet flame <i>Hua Zhou, Zhuyin Ren, David H. Rowinski</i>	P200: Optimization of Urea Selective Catalytic Reduction Reactor Based on RSM <i>Wu Yonge, Liang Xingyu, Wang Yuesen, Yu Hanzhengnan, Liu Qingling, Liu Xikai, Cao Xinyi</i>	P081: Kinetic Modelling and Experimental Study of Small Esters: Methyl Acetate and Ethyl Acetate <i>Ahfaz Ahmed, Marco Mehl, Nitin Lokachari, Elna J.K. Nilsson, Alexander A. Konnov, Scott W. Wagnon, William J. Pitz, Henry J. Curran, William L. Roberts, S. Mani Sarathy</i>	P072: Measurement of solid particulate matter deposited on the bottom of fuel pool during pool diffusion combustion <i>Yoshihiro Kobayashi, Masahiro Taguchi, Masataka Arai</i>	P053: Simulation Study on Influence of Natural Gas Pipeline Pressure on Jet Fire <i>Shuran Lyu, Shuqi Ma, Youbo Huang</i>	P039: Large eddy simulation of reacting flows in a scramjet combustor <i>Majie Zhao, Taohong Ye, Hong Ye</i>	P023: Multi-phase Numerical Study of Evaporation of Suspended Biodiesel Droplets <i>Saroj Ray, Vasudevan Raghavan</i>	P048: The sintering characteristics of ash during co-firing wheat straw and coal <i>Nijie Jing, Hongmei Zhu, Heping Li</i>
11:00	Break								

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11:30	P022: Measurement of the distribution of temperature and emissivity of a candle flame using hyperspectral imaging technique <i>Li Ni, Shu Zheng, Huawei Liu, Huaichun Zhou</i>	P177: Modelling of Flame Structure Using Thickened Flame Model Coupled With Multi-step Reaction Mechanism <i>Guo Shilong, Zhang Meng, Wang Jinhua, Huang Zuohua</i>	P025: Engine tail pipe particulate emissions and fault detection using an ion current sensor <i>Rahul Rao, Damon Honnery</i>	P141: Dynamic Adaptive Acceleration of Chemical Kinetics with Consistent Error Control <i>Wenwen Xie, Zhen Lu, Zhuyin Ren, Graham Goldin</i>	Invited Review: Self-propagating High-temperature Synthesis of Ceramics, Intermetallics, and Composite Materials <i>Chun-Liang Yeh, Department of Aerospace and Systems Engineering, Feng Chia University</i>	P056: Research on Explosive Characteristics of Combustible Gas within the Restricted Space in Wells <i>Lyu Shuran, Ma Shuqi</i>	P041: Numerical Study of Supersonic Flame Characteristics with Elevated Fuel Temperature Conditions at Fixed Mass Flow Rate Condition <i>Won-Sub Hwang, Seung-Min Jeong, Jeong-Yeol Choi</i>	P033: Understanding the effect of high environmental pressure on supercritical jet <i>Liang Li, Maozhao Xie, Ming Jia, Wu Wei</i>	P077: Computation of gases radiation heat transfer for oxy-char combustion with weighted sum of gray gases model <i>Shiquan Shan, Liping Chen, Longzhen Guo, Licheng Shao, Zhijun Zhou</i>
11:50	P051: Premixed flame structure of CH <sub>4</sub> /air in a novel mesoscale combustor with a plate flame holder and preheating channels <i>Jianlong Wan, Haibo Zhao</i>	P480: A Flame Index for the Lagrangian Probability Density Function Method <i>Zhen Lu, Zhuyin Ren, Hong G. Im</i>	P031: Throttling Effects on Dual-fuel Premixed Charge Compression Ignition under Low Load Condition in a Heavy Duty Diesel Engine <i>Euijoon Shim, Hyunwook Park, Choongsik Bae</i>	P371: CO <sub>2</sub> participation in chemical reaction in a CH <sub>4</sub> flat flame under O <sub>2</sub> /CO <sub>2</sub> /H <sub>2</sub> O environment <i>Hirotsu Watanabe, Takashi Komeno, Shunsuke Sugai</i>		P308: Dynamics of Burning of Laminar Liquid Pool Flames <i>Mayur Anvekar, T M Muruganandam, V Raghavan</i>	P306: Experimental Study on Velocity Deficits of Near-Limit Detonation Waves Initiated in Narrow Channels <i>Yuefei Xiong, Hung-Ping Chan, Ming-Hsun Wu, Jiang Qin, Chien-Fu Chen</i>	P035: Large eddy simulation of dilute spray dispersion and evaporation <i>Yang Qiong, Gong Huifeng, Hu Zongjie</i>	P080: High temperature chlorination of PbO and CdO by NaCl during incineration <i>Xinye Wang, Rong Du, Guilin Piao, Jubing Zhang, Min Chen, Yaji Huang</i>

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12:10	P065: Study on Cellular Structure Characteristics of Expanding Flame under Dynamic Pressure in Limited space <i>Yan-Huan Jiang, Guo-Xiu Li, Hong-Meng Li, Fu-Sheng Li</i>	P494: Mixing Model Evaluation for Transported PDF Modelling of Sooting Flames <i>Joshua C.K. Tang, Haiyou Wang, Michele Bolla, Evatt R. Hawkes, David O. Lignell</i>	P045: Theoretical Analysis for the Exergy Loss Mechanisms of n-Heptane/Air Mixtures under LTC Conditions: A Parametric Study <i>Daojian Liu, Hu Wang, Xumin Zhao, Yuanyuan Zhao, Mingfa Yao</i>	P158: Investigations of the low-temperature oxidation of acetaldehyde in a Jet Stirred Reactor <i>Tao Tao, Wenyu Sun, Nils Hansen, Ahren W. Jasper, Kai Moshammer, Bingjie Chen, Zhandong Wang, Bin Yang</i>	P073: Flow Reactor Study on Benzene Pyrolysis and Oxidation <i>K. Kashiwa, T. Kitahara, M. Arai, Y. Kobayashi</i>	P076: Effect of Water Mist Mass Fraction on Extinguishment of Counterflow Diffusion Flame in the Turbulent Air Flow <i>Ryohei Matsuo, Hiroyoshi Naito, Akira Yoshida</i>	P050: Suppression of Flame Propagation in a Long Duct by an Inert Gas Plug <i>Yu-Jhen Lin, Sheng-Hsun Wang, Chien-Ho Liu, Hsiao-Yun Tsai, Jenq-Renn Chen</i>	P058: DNS of cool flame propagation in n-dodecane spray autoignition <i>Taotao Zhou, Taohong Ye, Minming Zhu, Wenlong Cheng</i>	P315: Kinetic study of multi-component pyrotechnics: observations and interpretations of the DSC curves <i>Anirudha Ambekar, Juyoung Oh, Yoocheon Kim, Jai-ick Yoh</i>
12:30	P069: Investigation of the Stability and Behavior of Lifted Tri-brachial Flames <i>Narayan P. Sapkal, Kyu Ho Van, Jeong Park, Suk Ho Chung</i>	P322: Stabilization of Turbulent Auto-Igniting Hydrogen Jets Issuing in a Hot Vitiated Coflow <i>A.R.W. Macfarlane, M.J. Dunn, M. Juddoo, A.R. Masri</i>	P047: Transient Simulation of a Heavy Duty Turbocharged Multi Cylinder Diesel Engine <i>Sandeep V, Sunil Kumar Pandey, Devanandh V, Brijesh P</i>	P165: Global Sensitivity Analysis of Combustion Reaction Mechanisms <i>Shengqiang Lin, Xie Ming, Weixing Zhou</i>	P096: Catalytic combustion of lean CO over CuO/TiO <sub>2</sub> nano-catalyst synthesized by flame spray pyrolysis (FSP) <i>Xin Chen, Zuwei Xu, Haibo Zhao</i>	P078: Numerical simulation research on fire risk in a super long river-crossing subway tunnel <i>Xinxin Guo, Xuhai Pan, Zhilei Wang, Juan Yang, Min Hua, Juncheng Jiang</i>	P052: Numerical Simulation on Process of Pulse Detonation Engine Driven Ejector <i>Xi Qiao Huang, Xiang Zhou Feng, Miao Miao Wang, Qian Xiang Li, Bo Tao</i>	P082: Large eddy simulation of fuel injection under trans/supercritical conditions <i>Wu Wei, Maozhao Xie, Ming Jia, Hongsheng Liu, Liang Li</i>	P099: Two-Dimensional Temperature Measurement of Burning Flammable Solid Along the Limiting Oxygen Index Test Using Fluorescent Two-Color Method <i>Ikuya Tanaka, Toshiki Kaneko, Takeshi Yokomori, Aki Hosogai, Yuji Nakamura</i>
12:50	Lunch								
14:00	<b>Plenary Lecture:</b> Recent Progress in Experimental and Diagnostic Methods for Combustion Chemistry, <i>Professor Fei Qi</i> Chair: Phillippe Dagaut Auditorium B2010								

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15:00	P088: A numerical study of initial temperature distribution inside the cylindrical constant volume bomb and its effect on H <sub>2</sub> -air outwardly propagating spherical flames <i>Jian Tan, Gesheng Li, Junjie Liang, Peng Cheng, Zunhua Zhang</i>	P335: On the dynamics of instability mitigation by actuating the swirler in a combustor <i>Ankit K Dutta, Gopakumar R., Rahul B. V., Jasmeet Singh, Swetaprovo Chaudhuri</i>	P054: Effects of Discharge Frequency on Ignition Behaviors of DBD for Lean Methane/Air Mixtures <i>Shinji Nakaya, Taichi Kobayashi, Shingo Iseki</i>	P196: Inference and combination of missing data sets for investigation of H <sub>2</sub> O <sub>2</sub> thermal decomposition rate uncertainty <i>Tiernan A. Casey, Habib Najm</i>	P109: Numerical Simulation of Yttrium Oxide Nanoparticle Growth in Gas-Phase Flame Synthesis Using a Conditional Quadrature Method of Moments (CQMOM) <i>K. Takigawa, H. Matsushita, T. Yokomori</i>	P337: Fire behaviour modelling of polypropylene under autoignition conditions <i>Long Shi, Guomin Zhang, Sujeeva Setunge</i>	P067: Ignition Delay Times of Kerosene Blended with a Bio-Fuel Measured in a Shock Tube <i>Hee Sun Han, Chul Jin Kim, Chae Hoon Sohn, Jeongsik Han, Byung Hun Jeong</i>	P087: Sparse-Lagrangian MMC-LES Modelling of Reacting Acetone Spray <i>M.N. Khan, M.J. Cleary</i>	P107: Numerical study on flow and slagging property of SNG Gasifier <i>Yi Su, Min Yao, Chuntao Luo, Jianping Kuang, Yunhuan Jing, Zitong Zhao, Yinjian Ma</i>

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15:20	P029: The Dynamic Characteristics of Jet-diffusion Flame and Premixed Flame <i>Myunggeun Ahn, Taesung Kim, Deahong Lim, Youngbin Yoon</i>	P061: Modelling Turbulent Transport Effects on Kernel Formation <i>Linghan Kong, Lingyun Hou, Zhuyin Ren</i>	P060: Study of Combustion Behavior and Emission Formation of Compression Ignition Engine under Transient Operating Conditions Using Simulation Tools <i>Nikhil Mahajan, Brijesh P</i>	P256: Uncertainty Quantification of Autoignition Kinetics Using Sparse Polynomial Chaos <i>Jon Dewitt E. Dalisay, Edwin N. Quiros</i>	P123: Nanostructure Analysis of Soot Particles at Different Axial Locations in high-pressure diesel jet flames <i>Hao Jiang, Tie Li, Yifeng Wang, Pengfei He</i>	P098: Experimental Study on the Minimum Ignition Energy of Propane - Air Mixture with Various Water Mist Loading <i>Keisuke Nakahara, Chihong Liao, Hiroyoshi Naito, Akira Yoshida</i>	P079: Effect of the Presence of Nanosilver on Nanoaluminium Powder Vented Explosion <i>Khairiah Mohd Mokhtar, Rafziana Md Kasmani, Che Rosmani Che Hassan, Mahar Diana Hamid, Mohamad Iskandr Mohamad Nor</i>	P346: Application of Multiple Mapping Conditioning Mixing Model to Non-reacting Spray A <i>A. Varna, A. Wehrfritz, E. R. Hawkes, M. J. Cleary, T. Lucchini, G. D'Errico</i>	P113: Effects of Thermal Properties on Low Pressure Deflagration Limit of AP <i>Kumar Nagendra, Naveen Kumar, Kumar Ishitha, P.A. Ramakrishna</i>
15:40	P375: Numerical Simulation of Burned Gas-Wall Interaction on Stagnation Methane-Air Premixed Flame <i>T. Ishida, N. Hayashi</i>	P064: Numerical Study of Premixed and Stratified Combustion using Flame Surface Density <i>Zhou Yu, Taohong Ye</i>	P083: Experimental investigation of engine performance, emission and combustion characteristics of tea tree oil blend in a CI engine <i>S.M. Ashrafur Rahman, T.C. Van, F.M. Hossain, A. Dowell, M.A. Islam, M.N. Nabi, A.J Marchese</i>	P274: A Study of Low Temperature Oxidation of N-heptane and Iso-octane in a Pressurised Flow Reactor <i>Zhewen Lu, Zhongyuan Chen, Yi Yang, Michael Brear</i>	P176: The evolution of nascent soot formation in methane-ethylene, ethane-ethylene and propane-ethylene laminar premixed flames <i>Can Shao, He Lin, Baiyang Lin, Mani Sarathy, Zhen Huang</i>	P120: Dynamic behavior of temperature fluctuations during a turbulent fire <i>Kazushi Takagi, Hiroshi Gotoda, Isao T. Tokuda, Takaya Miyano</i>	P492: Effects of Heat Loss at Walls on Flame Acceleration and Deflagration-to-Detonation Transition <i>Wenhu Han, Ning Du, Wenjun Kong, Chung K. Law</i>	P097: Modelling and Analysis of Gas Feeding System Dynamics for Control of Constant Volume Combustion Rig Boundary Conditions <i>Vladimir Krivopolianskii, Sergey Ushakov, Vilmar Aesøy, Maximilian Malin, Eilif Pedersen</i>	P117: Numerical Analysis of Upward Flame Spread Over Multiple Thin PMMA Slabs <i>H. R. Rakesh Ranga, Vasudevan Raghavan</i>
16:00	Break								

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16:30	P125: Effect of Dilution by Carbon Dioxide on the Laminar Burning Velocity of n-Heptane/Air Mixtures <i>Mengni Zhou, Zunhua Zhang, Haiqi Ding, Junjie Liang, Gesheng Li</i>	P093: Turbulence Structures in Turbulent Premixed Bunsen Flames <i>Nobuhiro Makita, Hiroshi Saito, Hideki Hashimoto, Junichi Furukawa</i>	P084: Effect of In-Cylinder Injection Strategies on Performance and Emissions of Gasoline Direct Injection Engine using Simulation Tools <i>Patel Kamlesh Hirji, Sourabh Deshpande, Brijesh P</i>	P272: Impact of nitric oxide on the low temperature oxidation of iso-octane in a plug flow reactor <i>Zhongyuan Chen, Zhewen Lu, Hao Yuan, Yi Yang, Michael Brear</i>	P178: Effect of oxidation deposition by supercritical kerosene on heat transfer in a coiled tube <i>Xinyan Pei, William L. Roberts, Lingyun Hou</i>	P136: The Study of Fire Resistance of Building Integrated Photovoltaics <i>Ming-Tsung Yang, Yu-Liang Liou, Chun-Kuei Chen, Hsun-Ku Lee, Ta-Hui Lin, Cho-Fang Tsai, Ming-Yuan Lei, Tien-Chih Wang</i>	P135: Experimental Study on the Performance of a Pulse Detonation Rocket Engine with Injected Flows <i>Qibin Zhang, Wei Fan, Ke Wang, Wei Lu, Yongjia Wang</i>	P140: Micro-Explosion in Fuel Droplets of Hydrous Ethanol-Diesel Emulsion <i>Xiaoqing Zhang, Tie Li, Jianpeng Song, Yijie Wei</i>	P148: Downward Flame Spread over Electric Wire under Various Oxygen Concentration <i>Yusuke Konno, Katsuya Tsuzuki, Nozomu Hashimoto, Osamu Fujita</i>
16:50	P134: Laminar burning velocity of n-pentanol air mixtures using meso-scale channels <i>Amit Katoch, Ayush Chauhan, Rohit Kumar, Sudarshan Kumar</i>	P114: Flame Stretch Statistics in Premixed Jet Flames at High Reynolds Number <i>Stefano Luca, Antonio Attili, Fabrizio Bisetti</i>	P100: Influence of Tumble and Unsteady Effects on Near-Wall Heat Transfer in SI Engine <i>Ryosuke Okutani, Takeshi Yokomori, Masayoshi Matsuda, Hidetsugu Yamamoto, Norimasa Iida, Daijiro Ishii, Yuji Mihara</i>	P285: Oxidations of Ethanol and Gasoline Reference Fuels in a Pressurized Flow Reactor <i>Hao Yuan, Zhewen Lu, Zhongyuan Chen, Yi Yang, Michael J. Brear</i>	P028: Pyrolysis of dieldrin and formation of toxic products <i>W.N.K. Dharmarathne, J.C. Mackie, E.M. Kennedy, M. Stockenhuber</i>	P138: Numerical Investigation of Heating of an Object in a Pool Fire using Different Liquid Fuels <i>Alagani Harish, Vasudevan Raghavan</i>	P145: Experimental Study of the Nozzle-Ejector Effect on the Performance of a Pulse Detonation Engine <i>Zhiwu Wang, Yaqi Wang, Xing Liu, Hongwei Li, Kun Zhang, Longxi Zheng</i>	P154: An experimental study of evaporation characteristics of pure and blended biodiesel droplets at high temperatures <i>Kai Han, Zhaojing Ni, Hao Chen, Bo Pang</i>	P149: Improving ignition and combustion performance through burner retrofit for a supercritical down-fired boiler <i>Pengyuan Liu, Hai Zhang, Yang Zhang, Yuxin Wu, Junfu Lv</i>

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17:10	<p>P160: Experimental and CFD Investigation of Methane Partial Oxidation Above a Multiport Burner</p> <p><i>Yael Bornstein, David F. Fletcher, Brian S. Haynes</i></p>	<p>P116: Influence of Vortical Structures on Ignition in DNS of a Turbulent Mixing Layer with Non-Premixed H<sub>2</sub>/air Combustion</p> <p><i>Tatsuya Yonemura, Takashi Ohta, Yasuyuki Sakai</i></p>	<p>P111: Multiple Optical Diagnostics on both Partially Premixed Combustion (PPC) and Reactivity Controlled Compression Ignition (RCCI)</p> <p><i>Haifeng Liu, Xingwang Ran, Qinglong Tang, Chao Geng, Zhi Yang, Zunqing Zheng</i></p>	<p>P295: Enhanced oxidation of methane (CH<sub>4</sub>) by addition of carbon disulfide (CS<sub>2</sub>)</p> <p><i>Zhe Zeng, Bogdan Z. Dlugogorski, Mohammednoor Altarawneh</i></p>	<p>P180: Pyrolysis of dieldrin and formation of toxic products. II. Reaction mechanism</p> <p><i>J.C. Mackie, W.N.K. Dharmarathne, E.M. Kennedy, M. Stockenhuber</i></p>	<p>P146: Effect of floating perlites on the occurrence of thin-layer boilover</p> <p><i>Tzu-Yan Tseng, Kuang-Chung Tsai</i></p>	<p>P193: A Comparative Study of Obstacle-induced Detonation Initiation and Flame Jet Detonation Initiation in Chambers at the Same Scale</p> <p><i>Yeqing Chi, Wei Fan, Jiannan He, Jiawei Zheng</i></p>	<p>P161: Thermometry in Turbulent Dilute Spray Flames using 5kHz CPP-<i>fs</i>-CARS</p> <p><i>A. Lowe, L. Thomas, A. Satija, G. Singh, R.P. Lucht, A.R. Masri</i></p>	<p>P152: A discussion on the simplified volatile flame model for a solid particle</p> <p><i>Jiwoong Kim, Xiaoyang Niu, Sangmin Choi</i></p>
17:30	End of Day								



## Tuesday, 12 December 2017

8:30	<b>Plenary Lecture:</b> Modeling and Simulation of Pulverized Coal Combustion, <i>Professor Hiroaki Watanabe</i> Chair: Gus Nathan Auditorium B2010								
Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Nam Il Kim</i>	<b>Turbulent Flames</b> <i>Professor Zhuyin Ren</i>	<b>IC-Engines</b> <i>Professor Patel Brijeshkumar</i>	<b>Assisted Combustion</b> <i>Professor Kaoru Maruta</i>	<b>Stationary Combustion</b> <i>Professor Gus Nathan</i>	<b>Fires</b> <i>Dr Shaun Chan</i>	<b>Gas Turbines</b> <i>Professor Robert Dibble</i>	<b>Spray, Droplets &amp; Supercritical</b> <i>Professor Damon Honnery</i>	<b>Solid Fuels</b> <i>Dr Anirudha Ambekar</i>
9:30	P171: Flow and Flame Dynamics of Confined Buoyant Inverse Diffusion Flames <i>Xuren Zhu, Xi Xia, Peng Zhang</i>	P121: Simulation of Propane-Air Premixed Combustion Process in Randomly Packed Beds <i>Linsong Jiang, Hongsheng Liu, Dan Wu, Maozao Xie, Minli Bai</i>	P112: Experimental Study on the Effect of Lubricant Oil on Ignition Characteristics of Hydrocarbons Using a Rapid Compression Machine <i>Yuusuke Wachi, Kazuki Iwakura, Kotaro Tanaka, Mitsuru Konno, Ying Jiang, Yasuyuki Sakai</i>	P143: The effects of positive electric field on the spherical flame propagation at elevated pressures <i>Yiming Li, Jinhua Wang, Xuxing Wei, Xiaomin Wu, Zuohua Huang, Haibo Mu, GuanJun Zhang</i>	P027: Experimental study of combined effect of acoustic agglomeration and sprayed droplet on coal-fired ash <i>Huang Xiaoyu, Shen Guoqing, He Chunlong, Zhang Shiping, An Liansuo, Wang Liang, Chen Yanqiao, Li Yongsheng</i>	P162: Effects of pressure and oxygen concentration on a stabilized premixed combustion <i>Jean-Michel Most, Michel Champion</i>	P063: Modeling of Ammonia/air Non-premixed Turbulent Swirling Flames in a Gas Turbine like Combustor <i>K.D.K.A. Somarathne, A. Hayakawa, N. Iki, O. Kurata, H. Kobayashi</i>	P224: Study on evaporation and combustion of n-heptane droplet in a heated tube <i>Mang Feng, Junwei Li, Ningfei Wang, Xinjian Chen, Rong Yao</i>	P164: A Kinetic Study of Pyrolysis of Pine Wood using a Thermogravimetric Analyser and a Combined Model-free and y(α) Master Plot Method <i>Zhezi Zhang, Mingming Zhu, Pengfei Liu, Hendrix Y Setyawan, Dongke Zhang</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
9:50	P184: A numerical study of the autoignited laminar lifted methane/hydrogen mixtures in heated coflow air <i>Ki Sung Jung, Seung Ook Kim, Bok Jik Lee, Suk Ho Chung, Chun Sang Yoo</i>	P132: Large Eddy Simulation of Turbulent Flame with Inhomogeneous Inlets <i>T.Z. Hou, P. Wang, Q. Yu, C.J. Wang</i>	P185: The Control of Mixture Homogeneity in a Double-Injection Gasoline Compression Ignition (GCI) Engine <i>H. Goyal, S. Kook, E.R. Hawkes, Q.N. Chan</i>	P119: Combustion and Reformulation Characteristics of Biogas in Plasma Assisted Combustion Using Microwave Induced Non-Equilibrium Plasma <i>T. Yamamoto, S. Uchiyama, H. Matsune, M. Kishida</i>	P287: Lean methane combustion over palladium loaded on alumina and HBETA zeolite – the role of the support on water vapour inhibition <i>Hadi Hosseiniamoli, Eric M. Kennedy, Michael Stockenhuber</i>	P118: Experimental Study on the Improvement of Fire Retardant Performance for Boron-Phosphorous Chemicals Treated Wood-based Materials <i>Hyun Jeong Seo, Jeong Min Jo, Wuk Hwang, Min Chul Lee</i>	P245: Development of an oxygen-hydrocarbon torch for liquid rocket engine ignition <i>Jiaqi Zhang, Qinglian Li</i>	P233: Bio-Alcohols Electrospays for Practical Propulsion Systems <i>Ohood AlNuaimi, Dimitrios C. Kyritsis</i>	P174: MILD Combustion of Grape Marc as a Source of Renewable Energy <i>Manabendra Saha, Giovanni Gitto, Bassam Dally</i>
10:10	P187: A Numerical Study of Flame Instability and Cell Dynamics of Opposed Nonpremixed Tubular Flames near Radiation-Induced Extinction Limit <i>Hyun Su Bak, Chun Sang Yoo</i>	P133: A sub-grid scale combustion model based on thickened-flame method and REDIM chemistry table <i>Liang Xu, Ping Wang, Qian Yu, Tian-zeng Hou</i>	P194: The Effect of After Injection on In-Cylinder Soot Particulates in a Small Bore Diesel Engine <i>L. Rao, Y. Zhang, D. Kim, S. Kook, K.S. Kim, C.-B. Kweon</i>	P257: Numerical investigation of thermal and chemical effects of nanosecond repetitively pulsed discharges on a laminar premixed counterflow flame <i>Sylvain Heitz, Jonas P. Moeck, Anne Bourdon, Deanna A. Lacoste</i>	P108: A Comparison of Complex Chemistry Mechanisms for Hydrogen Methane Blends Based on the Sandia / Sydney Bluff-Body Flame HM1 <i>H. H.-W. Funke, N. Beckmann, S. Abanteriba</i>	P166: Lewis number effect on the flame height of circulation-controlled firewhirls <i>Dehai Yu, Peng Zhang</i>	P147: Mode coupling due to the non-uniformly distributed heat release in combustion instabilities <i>Lei Li, Liangliang Xu, Guoqing Wang</i>	P234: Burning of Two Arbitrary Sized n-Heptane Droplets Suspended in a Grid Generated Turbulent Jet Flow Field <i>P Senthil Kumar, Gunamani Nath, V Raghavan, T Sundararajan</i>	P181: On the Use of Sparse-Lagrangian MMC-LES for Simulation of a Piloted Coal Jet <i>L.F. Zhao, M.J. Cleary, O.T. Stein, A. Kronenburg</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
10:30	P188: A Study on Measurement of Laminar Burning Velocity and Cellular Instability of SNG Fuel with 3% Hydrogen in Spherical Propagating Flames <i>Dong Chan Kim, Jun Ho Song, Kee Man Lee</i>	P144: Experimental Analysis of the Effect of Fuels on the Flame Describing Function of a Swirl-Stabilized Premixed Flame <i>Francesco Di Sabatino, Thibault F. Guiberti, Jonas P. Moeck, William L. Roberts, Deanna A. Lacoste</i>	P024: Experimental Study of Spray Characteristics, Engine Performance and Emission Levels of Acetone-Butanol-Ethanol Mixture-Diesel Blends in a Diesel Engine. <i>Sattar Jabbar Algayyim, Andrew P. Wandel, Talal Yusaf, Ihsan Hamawand, Saddam Al-Wazy</i>	P317: Two typical effects of microsecond plasma on flow rate disturbance premixed swirl flames <i>Wei Cui, Yihua Ren, Shuiqing Li</i>	P130: Rheological properties and ageing of bioslurry fuels prepared from crude glycerol/methanol /bio-oil blend and biochar for stationary combustion applications <i>Wenran Gao, Mingming Zhang, Hongwei Wu</i>	P220: Firewhirl dynamics : what we know and what we don't <i>A. Y. Klimenko, F. A. Williams</i>	P247: Numerical and experimental studies on the gas generator with separated air for mixing and cooling <i>Xinchen Liu, Jiaqi Zhang, Qinglian Li, Jianjun Zou</i>	P241: Combustion Characteristics of Multi-staged Burner with Mixed Fuels <i>Minjun Kwon, Daehae Kim, Yongmo, Kim, Sewon Kim</i>	P198: On-line product analysis of coal and corn co-pyrolysis using photoionization mass spectrometry <i>Jun-Jie Weng, Yue-Xi Liu, Ya-Nan Zhu, Yang Pan, Zhen-Yu Tian</i>
10:50	Break								

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Satyanarayanan Chakravarthy</i>	<b>Turbulent Flames</b> <i>Professor Zhuysin Ren</i>	<b>IC-Engines</b> <i>Professor Patel Brijeshkumar</i>	<b>Assisted Combustion</b> <i>Professor Kaoru Maruta</i>	<b>Stationary Combustion</b> <i>Professor Gus Nathan</i>	<b>Fires</b> <i>Dr Shaun Chan</i>	<b>Gas Turbines</b> <i>Professor Robert Dibble</i>	<b>Spray, Droplets &amp; Supercritical</b> <i>Professor Damon Honnery</i>	<b>Solid Fuels</b> <i>Professor Ta-Hui Lin</i>
11:20	P189: Effect of H2 and CO Dilution on NO Formation in Coflow CH4/air Diffusion Flames <i>Ye Y, Jianfei X, Zhongzhu G, Haiyang A, Xianpeng Z</i>	P493: Effect of Spark Gap on Turbulent Facilitated Ignition through Differential Diffusion <i>S.S. Shy, M.T. Nguyen, S.Y. Huang, C.C. Liu</i>	P202: Influence of Injection Timing on In-Cylinder Flow and Combustion Performance in a Spark-Ignition Direct-Injection (SIDI) Engine <i>L.G. Clark, S. Kook, Q.N. Chan, E.R. Hawkes</i>	P356: Electro-hydrodynamic instability of premixed flames under manipulations of DC electric fields <i>Yihua Ren, Wei Cui, Shuiqing Li</i>	P131: Combustion of bioslurry and its fractions: different contributions to PM10 emission <i>Chao Feng, Wenran Gao, Hongwei Wu</i>	Invited Review: Fire & Rescue NSW's Fire Research Program: A partnership approach to improving community safety through the application of fire research <i>Assistant Commissioner Jeremy Fewtrell, Assistant Commissioner Operational Capability, Fire &amp; Rescue NSW</i>	P275: A Comparative Study of a Novel Multi-swirl Lean Direct Injection and Conventional Single Swirl Gas Turbine Burner for Reduced Emissions and Combustion Instability <i>V. Deepika, S.R. Chakravarthy, T.M. Muruganandam, N. Raja Bharathi</i>	P255: PDF-PBE for Particle Dispersion in a Turbulent Round Jet <i>Fatemeh Salehi, Matthew J. Cleary, Assaad R. Masri, Andreas Kronenburg</i>	P216: Effects of humidity on the aging of the pyrotechnic compositions ZPP and THPP <i>Juyoung Oh, Anirudha Ambekar, Yoocheon Kim, Jai-ick Yoh</i>
11:40	P190: Ion chemistry investigation in rich methane premixed flames <i>Haoyi Wang, Bingjie Chen, Jie Han, Heng Wang, Nils Hansen, S. Mani Sarathy</i>	P155: Evolution of Surface Elements of Premixed Flames in Turbulence <i>Abinesh Mohan, Himanshu L.Dave, Swetaprovo Chaudhuri</i>	P205: The Influence of Swirl Flow on Soot Formation Processes inside the Piston Bowl of a Small-bore Diesel Engine <i>Y. Zhang, D. Kim, L. Rao, S. Kook, K.S. Kim, C.-B. Kweon</i>	P374: Characteristics of Liftoff and NOx Emission in Microwave Enhanced Methane Micro-Jet Flames <i>Young Hoon Jeon, Eui Ju Lee</i>	P175: Application of N-doped Fly Ash Materials with Enhanced Working Capacity for Post-combustion CO2 Capture <i>Peng Wang, Chuanwen Zhao, Yafei Guo, Junjie Yan, Ping Lu</i>		P303: Verification of Beating Phenomenon by Measuring of Pilot Flame Behavior in a Dual Swirl Combustor <i>Jaehyeon Kim, Munseok Jang, Keeman Lee</i>	P263: An Experimental Study on Heavy Fuel Oil Droplet Combustion <i>Abdulrahman Alkhateeb, Paolo Guida, Eid Barakati, Alaaeldin Dawood, Ayman M. Elbaz, William L. Roberts</i>	P259: Experimental Study of Spherical Turbulent Flame Propagation of Pulverized Coal Particles Cloud in O2/N2 Atmosphere <i>Khalid Hadi, Ryo Ichimura, Nozomu Hashimoto, Osamu Fujita</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
12:00	P195: Flame front evolution and self-acceleration of hydrogen spherically expanding flames <i>Xiao Cai, Jinhua Wang, Haoran Zhao, Zuohua Huang</i>	P433: An Experimental Study on the Temperature Measurement Technique Using Ultrasonic Waves <i>Wuk Hwang, Hyun Jeong Seo, Jeong Min Jo, Min Chul Lee</i>	P208: Combustion Measurements of Waste Cooking Oil Biodiesel <i>C. Ming, I.M. Rizwanul Fattah, Q.N Chan, P.R. Medwell, S. Kook, E.R. Hawkes, G.H. Yeoh</i>	P349: Study on combustion and ignition characteristic of weakly flammable refrigerant R125 using a micro flow reactor with a controlled temperature profile <i>Shintaro Takahashi, Hisashi Nakamura, Takuya Tezuka, Susumu Hasegawa, Kaoru Maruta</i>	P199: Iron oxide composite catalyst for the environmental emission control <i>Patrick Mountapmbeme Kouotou, Achraf El Kasmir, Muhammad Waqas, Zhen-Yu Tian</i>	P222: The Study on Ultra-Low NOx Burner using both Fuel and Air Injection Recirculation Technique <i>DaeHae Kim, SungWoo Bae, Sewon Kim, MinJun Kwon, YongMo Kim</i>	P075: Investigation of Ignition Process in a Premixed Swirl Configuration <i>Masoud EidiAttarZade, Sadegh Tabejamaat, Mahmoud Mani, Mohammad Farshchi</i>	P283: Experimental Study on Breakup and Ignition of Water Emulsified n-Dodecane Impinging on a Hot Surface <i>Gyu Min Jang, Nam Il Kim</i>	P290: Molecular Characterization of Lignin Pyrolysis Tar By High-Resolution Orbitrap Mass Spectrometry <i>Chunjinag Liu, Yizun Wang, Chaoqun Zhou, Hao Ma, Xiamin Chen, Fei Qi, Zhongyue Zhou</i>
12:20	P497: Numerical simulation on heat release rate in triple point of triple flame <i>Naoki Hayashi</i>	P218: Flame Displacement Speed Characteristics of Turbulent Premixed Flames in a Constant Volume Vessel <i>Basmil Yenerdag, Yuki Minamoto, Masayasu Shimura, Mamoru Tanahashi</i>	P209: Experimental Study of Main-Post Injection under Compression-Ignition Engine Conditions, Part I: Effects of Dwell Time <i>C. Ming, Q.N. Chan, X.P. Pham, S. Kook, E.R. Hawkes, G.H. Yeoh, S. Yang, A.R. Masri</i>	P456: Investigation of Combustion and Thermodynamics Processes in a Micro Internal Combustion Swing Engine <i>Ning Du, Xiong Zhou, Wenhui Han, Wenjun Kong</i>	P213: Simultaneous removal of soot and NOx with a La0.7Ag0.3MnO3 perovskite-like catalyst: Effect of synthesis method <i>Laura Urán, Jaime Gallego, Alexander Santamaria</i>	P225: Combustion characteristics of multiple n-heptane pool fires <i>Yan Jiao, Wei Gao, Naian Liu, Jiao Lei, Linhe Zhang, Cong Ji</i>	P360: Transition between Swirl and Bluffbody Flame Stabilization in a Novel Ultra-lean Non-premixed Burner <i>R. Sadanandan, A. Chakraborty, V.K. Arumugam, S.R. Chakravarthy</i>	P286: Liquid Jet in Swirling Cross Flow – An Experimental Study <i>Surya Prakash R., Prasad Boggavarapu., Raghunandan B. N., Gaurav Tomar, Ravikrishna R. V.</i>	P479: Bishomocubanes as Possible Binders in Composite Solid Propellants <i>Lovely Mallick, Hardik K. Thakker, Sohan Lal, Sudarshan kumar, Irishi N N, Namboothiri, Arindrajit Chowdhury, Neeraj Kumbhakarna</i>
12:40	End of Day								
13:00	<b>Social Function:</b> Visit to Taronga Zoo, Mosman								

### Wednesday, 13 December 2017

8:30	<b>Plenary Lecture:</b> Need for a Comprehensive Approach to Gas Turbine Combustion Including Instabilities and Emissions, <i>Professor Satyanarayanan R. Chakravarthy</i> Chair: Professor Assaad Masri Auditorium B2010								
Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Naoki Hayashi</i>	<b>Turbulent Flames</b> <i>Professor Sadegh Tabejammal</i>	<b>IC-Engines</b> <i>Professor Haifeng Liu</i>	<b>Reaction Kinetics</b> <i>Dr Jingjing Ye</i>	<b>Stationary Combustion</b> <i>Professor Ping Lu</i>	<b>Fires</b> <i>Professor Vasily Novozhilov</i>	<b>Detonations &amp; Explosions</b> <i>Professor Jafar Zanganeh</i>	<b>Spray, Droplets &amp; Supercritical</b> <i>Professor Vasudevan Raghavan</i>	<b>Solid Fuels</b> <i>Professor Osamu Fujita</i>
9:30	P223: A Study on Extinction Behavior of Stretched Premixed SNG(H <sub>2</sub> -11%) Flames <i>Seulgi Kim, Keunseon Sim, Kwangjin Kim, Keeman Lee</i>	P182: Analysis of vortex dynamics behind bluff body burners using the discrete vortex method <i>Zetian Ren, Haojie Tang, Chih-Yu Kuo, Min Zhu</i>	P211: Experimental Study of Main-Post Injection under Compression-Ignition Engine Conditions, Part II: Two-color Pyrometry <i>P. Rorimpandey, C. Ming, Q.N. Chan, X.P. Pham, S. Kook, E.R. Hawkes, G.H. Yeoh, S. Yang, A.R. Masri</i>	P298: High Temperature Unimolecular Decomposition of Cyclopentanone <i>Binod Raj Giri, Mohammed AlAbbad, John R. Barker, Aamir Farooq</i>	P104: A pilot-scale study on the oxidation of ventilation air methane (VAM) using ilmenite <i>Priscilla Tremain, Andrew Maddocks, Behdad Moghtaderi</i>	P237: Thermal stratification in corridor of typical building structure under wind effect <i>Bei Cao, Xiaodong Zhou, Yubiao Huang, Yuan Zheng, Kun Zhao, Fei Peng, Kai Ye, Lizhong Yang</i>	P221: Numerical simulation of combustion of energetic components <i>Bohoon Kim, Jai-ick Yoh</i>	P299: Dual-Angle Micro-Particle Tracking Velocimetry in the Primary Atomization Zone of Electrostatically Charged Diesel Sprays <i>Phuong X. Pham, Agisilaos Kourmatzis, Shehzaib Y. Khan, Assaad R. Masri</i>	P400: Derivation of accurate rate constants for char CO <sub>2</sub> , H <sub>2</sub> O gasification using a pressurized drop tube furnace <i>Geun Sohn, Insoo Ye, Changkook Ryu, Howon Ra, Sungmin Yoon</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
9:50	<p>P232: Blowoff Dynamics of Lean Premixed Flames Stabilized on a Meso-scale Bluff-body</p> <p><i>Yu Jeong Kim, Bok Jik Lee, Hong G. Im</i></p>	<p>P191: Dynamical Analysis of Turbulent Premixed Hydrogen/Air Flames in the Thin Reaction Zone Regime</p> <p><i>Efstathios-Al. Tingas, Roman Kashtanov, Francisco E. Hernández Pérez, Hong G. Im, Pietro Paolo Ciottoli, Riccardo Malpica Galassi, Mauro Valorani</i></p>	<p>P228: Numerical Investigation into Natural Gas–Diesel Dual-Fuel Engine Configuration</p> <p><i>Baocong Jing, Andrew P. Wandel</i></p>	<p>P305: n-Heptane cool flame chemistry: unraveling intermediate species measured in a stirred reactor and motored engine</p> <p><i>Zhandong Wang, Bingjie Chen, Kai Moshammer, Denisia M. Popolan-Vaida, Salim Sioud, Vijai Shankar, Bhavani Shankar, David Vuilleumier, Tao Tao, Lena Ruwe, Eike Bräuer, Nils Hansen, Philippe Dagaut, Katharina Kohse-Höinghaus, Misjudeen A. Raji, S. Mani Sarathy</i></p>	<p>P311: Droplet combustion studies of bis(nitratomethyl)-1-3-bishomocubane and its mixture with an RP-1 surrogate fuel</p> <p><i>Anand Sankaranarayanan, Sohan Lal, I.N.N.Namboothiri, Sasidharakurup, Reshmi, Arindrajit Chowdhury, Neeraj Kumbhakarna</i></p>	<p>P269: Effects of slope and fuel bed width on fire spread: An experimental study</p> <p><i>Han Li, Naian Liu, Xiaodong Xie, Linhe Zhang, Xieshang Yuan, Domingos X. Viegas</i></p>	<p>P242: Effects of Non-uniform Ignition on Ignition Delay Measurement in Shock Tube</p> <p><i>Chengyang Huang, Chengken Qi, Zheng Chen</i></p>	<p>P300: Joint Volume-Velocity Analysis of Liquid Jet and Fragment Dynamics in Air-Assisted Sprays</p> <p><i>Phuong X. Pham, Agisilaos Kourmatzis, Assaad R. Masri</i></p>	<p>P368: Influence of NOx in Combustion of Biomass Fuel</p> <p><i>Ibukun Oluwoye, Bogdan Z. Dlugogorski, Jeff Gore, Mohammednoor Altarawneh</i></p>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
10:10	P235: On the extinction strain rates of counter-flow diffusion flames <i>S M Ali, Varunkumar S</i>	P201: Large eddy simulation of turbulent partially premixed flames with inhomogeneous inlets using the DSMC model <i>Yun Bai, Kun Luo, Wenjian Bi, Jianren Fan</i>	P239: Local Three-point Heat Flux Measurement on Sub-millimeter Scale in an Internal Combustion Engine <i>Kazuhito Dejima, Osamu Nakabeppu, Yuto Nakamura, Tomohiro Tsuchiya</i>	P310: High-temperature rate constant measurement for the reaction of GVL with OH <i>D. Liu, F. Khaled, A. Farooq</i>	P321: The Model Development for a Bottom-blowing Converter <i>Zhi-Hong Yang, Xin-Yi Lin, Sheng-Yen Hsu, Jyun-Sheng Wang, Yung-Chang Liu, Chien-Hsiung Tsai</i>	P062: Experimental Investigation of Explosion Characteristics of Methane–Air Mixtures in a Vented Vessel Connected to a Curved Duct <i>Sazal K. Kundu, Jafar Zanganeh, Daniel Eschebach, Behdad Moghtaderi</i>	P243: Numerical study on non-uniform detonation initiation in H <sub>2</sub> /O <sub>2</sub> /N <sub>2</sub> mixture <i>Yuan Wang, Wang Han, Ralf Deiterding, Zheng Chen</i>	P103: Characterization of Spray Formed by a Pintle Injector Element <i>Peng Cheng, Qinglian Li, Huiyuan Chen</i>	P353: Impact of Torrefaction on Flash Pyrolysis Products of Biomass and Comparison to Fossil Fuels <i>Stefan Pielsticker, Benjamin Gövert, Georg Möller, Oliver Hatzfeld, Reinhold Kneer</i>
10:30	P236: Research on the effects of diluents and dilution ratios on laminar burning velocities and flame instabilities of hydrogen flame <i>Xin Lu, Erjiang Hu, Xiaotian Li, Zuohua Huang</i>	P207: Transported PDF simulations of turbulent CH <sub>4</sub> /H <sub>2</sub> flames under MILD combustion conditions <i>Hu Wang, Hua Zhou, Zhuyin Ren</i>	P244: A Computational Study of Multiple Injection Strategies in Compression Ignition Engines at High Pressure <i>Gustav Nyrenstedt, Mohammed Jaasim, Eshan Singh, Rafiq Babayev, Hong G. Im, Mani Sarathy, Bengt Johansson</i>	P364: The Mechanism of Electrophilic Addition of Singlet Oxygen to Unsubstituted Pyrrole <i>Nassim Zeinali, Jomana Al-Nu'airat, Zhe Zeng, Mohammednoor Altarawneh, Dan Li, Jakub Skut, Bogdan Z. Dlugogorski</i>	P329: Investigation on Combustion Characteristics of Sewage Sludge Solid Fuels using Pilot-scale Bubbling Fluidized Bed Reactor <i>Donghee Kim, Hyungjun Ahn, Kang Y. Huh, Youngjae Lee</i>	P085: Methane-Air Flame Propagation Characteristics in Presence of Restriction in a Duct <i>Mohammadreza Shirzaei, Jafar Zanganeh, Sazal Kundu, Behdad Moghtaderi</i>	P249: Detonation in Ammonia-based Mixtures <i>R. Mével, J. Melguizo-Gavilanes, N. Chaumeix</i>	P320: An Experimental Study of the Effect of Biodiesel on the Ignition and Combustion Characteristics of Single Droplets of Glycerol <i>Hendrix Y Setyawan, Mingming Zhu, Zhezi Zhang, Dongke Zhang</i>	P172: Study on the torrefaction characteristics of raw and pelletized biomass <i>Yangtian Ye, Kai Liu, Yuxuan Wang, Ping Lu</i>
10:50	Break								



Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Fei Qi</i>	<b>Turbulent Flames</b> <i>Professor Zuohua Huang</i>	<b>IC-Engines</b> <i>Dr Lyle Pickett</i>	<b>Reaction Kinetics</b> <i>Professor Junying Zhang</i>	<b>Stationary Combustion</b> <i>Professor Neeraj Kumbhakarna</i>	<b>Fires</b> <i>Professor Vasily Novozhilov</i>	<b>Detonations &amp; Explosions</b> <i>Professor In-Seuck Jeung</i>	<b>Spray, Droplets &amp; Supercritical</b> <i>Professor Vasudevan Raghavan</i>	<b>Solid Fuels</b> <i>Professor David Fletcher</i>
11:20	P238: Non-monotonic Cellular Instability of Methanol/Air Flames <i>Guoqing Wang, Lei Li, Yuyang Li, Fei Qi</i>	P210: On the Effects of High-Pressure on Turbulent Inhomogeneous Flames Computed using PDF-RANS Methods <i>S. Al-Dawsari, M.J. Cleary, A.R. Masri</i>	P251: Effects of hydrogen enrichment on combustion and emissions formation processes in a gasoline rotary engine <i>Jinxin Yang, Changwei Ji, Shuofeng Wang, Teng Su, Du Wang</i>	P179: Theoretical investigation of the ethylbenzene with NH <sub>2</sub> radical: H abstraction and addition reactions pathways <i>Kamal Siddique, Mohammednoor Altarawneh, Anam Saeed, Jeff Gore, Bogdan Z. Dlugogorski</i>	P330: Ignition Improvement and NO <sub>x</sub> Reduction with Local Oxygen-Enriched Coal-fired Burner <i>Hai Zhang, Kai Cui, Yang Zhang, Yuxin Wu, Qing Liu, Junfu Lv, Guangxi Yue</i>	P453: Effect of fuel Lewis number on flame spread over solid fuels in microgravity environment <i>B Praveen Kumar, Amit Kumar</i>	P032: Examine the Minimum Ignition Energy Required to Ignite the Coal Dust Cloud in Ventilation Air Methane <i>Mohammed Jabbar Ajrash, Jafar Zanganeh, Behdad Moghtaderi</i>	P105: Experimental investigation on evolution of surface wave of round liquid jet in M2.85 supersonic crossflow <i>Chun Li, Qinglian Li, Chibing Shen, Chenyang Li</i>	P326: Effect of Diameter on Flame Spread Over Electrical Wires with Applied AC Electric Fields <i>S. H. Park, S. J. Lim, J. Park, O. Fujita, S. H. Chung</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
11:40	P240: Numerical study on the laminar flame characteristics of acetylene-methanol blends <i>Qianqian Li, Yemiao Zhang, Yingjia Zhang, Zuohua Huang</i>	P217: Mixture-Fraction Based Hybrid Binomial-Langevin-MMC Modelling Applied to Auto-ignition in Vitiated Flow <i>Andrew P. Wandel, R. Peter Lindstedt</i>	P501: Development of Instantaneous Local Heat Flux Sensor for Internal Combustion Engine <i>Yuto Nakamura, Kazuhito Dejima, Tomohiro Tsuchiya, Osamu Nakabeppu</i>	P445: Autoignition of Low to High Octane Gasolines <i>A. Farooq, B.R. Giri, M. AlAbbad, S.M. Sarathy, H. Curran</i>	P363: Electro spray driven wet cyclone electrostatic precipitator for ultrafine particles collection inside a combustion flue gas <i>Jong Won Choi, Dae Hun Chung, Young Chan Choi, Joeng Guen Kim, Wook Hyun Lee, Youngmin Woo, Min Hye Yoon</i>	P229: Morphological Evolution of Flexible Polyurethane Foam during Pyrolysis and Effects on Smoldering Establishment and Propagation <i>Fei You, Shiqiang Hu</i>	P415: ZND Structure of Cool Detonation in Dimethyl Ether-Oxygen-Carbon Dioxide Mixtures <i>R. Mével, J. Melguizo-Gavilanes, M. Radulescu</i>	P362: Microscopic Characterization of the Near-nozzle Field Diesel Sprays <i>Yijie Wei, Tie Li, Bin Wang</i>	P408: A numerical study of coal gasification flame with one-dimensional turbulence model <i>Qi Zhang, Yuxin Wu, Junfu Lv, Hai Zhang</i>
12:00	P248: Numerical Study and HCHO-PLIF Measurement of Wall-Stabilized Cool Flames <i>Minhyeok Lee, Yong Fan, Christopher B. Reuter, Yiguang Ju, Yuji Suzuki</i>	P250: Generalisation of the eddy-dissipation concept for low turbulence, low Damköhler number jet flames <i>M.J. Evans, C. Petre, A. Parente</i>	P261: Direct numerical simulation of H2 effect on autoignition of DME/air mixture under HCCI engine conditions <i>Tai Jin, Xujiang Wang, Kai Hong Luo, Kun Luo, Jianren Fan</i>	P458: Investigation of ignition characteristics for hydrocarbon fuels by using RCER <i>Koji Fujino, Naoto Izumi, Takahiro Kondo, Tatsuo Oguchi</i>	P365: Power generation performance of hydrogen-fueled micro thermophotovoltaic reactor <i>Chien-Chun Kao, Yueh-Heng Li, Jing-Ru Hong</i>	P049: Simulation of an experimental jatropa oil pool fire by FDS <i>Avinash Chaudhary, Akhilesh Gupta, Surendra Kumar, Ravi Kumar</i>	P042: Investigation of Methane and Coal Dust Concentration Impact on Explosion Pressure Rise in a Confined Spherical Space <i>Yusuf Badat, Mohammed Jabbar Ajrash, Jafar Zanganeh, Behdad Moghtaderi</i>	P379: Effect of air coflow and swirl on droplet dispersion in reacting sprays <i>Mallela Jagadeesh, Manish M, Srikrishna Sahu</i>	P446: The progressive ash formation and deposition dynamics in a 25 kW coal combustor <i>Qian Huang, Qiang Yao, Shuiqing Li</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
12:20	P282: Flame Behaviors within transient regime in Helium-diluted Laminar-lifted Coflow-jet Flames <i>S. H. Oh, K. H. Van, J. Park, O. B. Kwon, S. H. Chung, J. H. Yoon, S. I. Keel</i>	P264: Direct Numerical Simulation of the Transition from a Laminar Cool n-Heptane/Air Ignition Front to a Distributed Premixed Turbulent Cool Flame <i>B. Savard, H. Wang, E. R. Hawkes</i>	P293: Modelling the effects of ethanol fumigation on engine performance and emissions in a six-cylinder, common rail diesel engine <i>F Lodi, T Bodisco, N Surawski, RJ Brown, Y Yousef</i>	P473: Reduction Methodology for Detailed Kinetic Mechanisms: Application to n-Hexane-Air Hot Surface Ignition <i>S. Coronel, J. Melguizo-Gavilanes, D. Davidenko, R. Mével, J. E. Shepherd</i>	P367: Optimizing the Operating Parameters of Torrefaction Process on the Combustion Enhancement of Coal/Biochar Blended Fuels <i>Kai-Lin Xiao, Chao-Wei Huang, Yueh-Heng Li, Guan-Bang Chen</i>		P289: Reducing Combustor Length within a Mach 12 Shape-Transitioning Scramjet <i>Will O. Landsberg, Vincent Wheatley, Michael K. Smart, Ananthanarayana n Veeraragavan</i>	P407: A Comparison of the Performance of Uni-element Injectors for Laboratory Scale Rocket Engines <i>Tausif Shaikh, Rajat Sawanni, Arindrajit Chowdhury, Swami Umakant</i>	P325: Combustion Behavior of Partial Substitution of Solid Fossil Fuel by Biomass <i>Shuhn-Shyurng Hou, Wei-Cheng Huang, Ta-Hui Lin</i>
12:40	P291: Flame Chemiluminescence Measurements of a Laminar Forced Flame Interacting with a Cold Wall <i>Jacob E. Rivera, Robert L. Gordon, Mohsen Talei</i>	P266: An MMC-LES Simulation of Turbulent Piloted Flames using a Shadow Position Reference Variable <i>S. Galindo-Lopez, F.Salehi, M.J. Cleary, A.R. Masri, A.Y. Klimenko</i>	P294: A Preliminary Study Modelling NO Emission by Subset Selection using a Genetic Algorithm and In-cylinder Parameters <i>T Bodisco, K Fang, A Zare, RJ Brown, Z Ristovski</i>	P488: Shock-Tube Measurements and Kinetic Study of NO <sub>2</sub> promoting-effect on ethane ignition <i>Fuquan Deng, Xue Jiang, Yousun Pan, Feiyu Yang, Yingjia Zhang, Zuohua Huang</i>	P467: Effective Parameters for Combustion Stability of Ultra Low Emission CO <sub>2</sub> Generator using a Catalytic Combustor <i>Byungchul Choi, Kyungho Park, Pilsoo Jeong</i>		P086: Pressue Wave and Flame Front Positions Originating from Methane-Air Explosions in a 1m <sup>3</sup> Vessel with Circular Duct <i>Daniel Eschebach, Jafar Zanganeh, Behdad Moghtaderi</i>	P470: Study of Single oil Droplet Induced Auto-Ignition of Hexadecane and Engine Oil <i>Sumit Maharjan, Long Jiang, Yasser Al Qahtani, William L. Roberts</i>	P091: Experimental Investigation on the Ignition and Combustion Characteristics of a Single Magnesium Particle in Air <i>Yunchao Feng, Zhixun Xia, Liya Huang, Likun Ma</i>
13:00	Lunch								
14:15	<b>Plenary Lecture:</b> Supersonic Combustion in Ram Accelerator and Scramjet Engine, <i>Professor In-Seuck Jeung</i> Chair: Alex Klimenko Auditorium B2010								

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Fei Qi</i>	<b>Turbulent Flames</b> <i>Professor Zuohua Huang</i>	<b>IC-Engines</b> <i>Dr Lyle Pickett</i>	<b>Reaction Kinetics</b> <i>Professor Junying Zhang</i>	<b>Soot, PAH &amp; Material Synthesis</b> <i>Dr Yuyang Li</i>	<b>New Burners &amp; Concepts</b> <i>Professor Deanne Lacoste</i>	<b>Detonations &amp; Explosions</b> <i>Professor In-Seuck Jeung</i>	<b>Spray, Droplets &amp; Supercritical</b> <i>Dr Fatemeh Salehi</i>	<b>Solid Fuels</b> <i>Professor David Fletcher</i>
15:15	P309: Direct Estimation of Edge Flame Speeds from Liftoff Heights of n-Butane and DME <i>Min-Kyu Jeon, Nam Il Kim</i>	P156: Numerical Study of a High Swirl Number Swirler <i>Majid Aghayari, Sadegh Tabejamaat, Bashir Ajjele</i>	P304: Effects of Sulphur and Vanadium Contents in Diesel Fuel on Engine Performance and Emissions: Principal Component Analysis (PCA) <i>Nicholas Surawski, Thuy Chu Van, Zoran Ristovski, Nho Luong Cong, Huong Nguyen Lan, Chung-Shin Jonathan Yuan, S. M. Ashrafur Rahman, Farhad M. Hossain, Yi Guo, Andelija Milic, Thomas Rainey, Vikram Garaniya, Richard J. Brown</i>	P511: Combustion characteristics of CH4/CO with the variation of H2 addition <i>Yu-Ting Chen, Tsarng-Sheng Cheng, Yueh-Heng Li, Fang-Hsien Wu, Jian-Syun Wu</i>	P267: Effects of Di-n-butyl Ether Addition to Turbulent Toluene Sooting Flames <i>Jingjing Ye, Stephan Kruse, Paul Medwell, Zhiwei Sun, Bassam Dally, Heinz Pitsch</i>	P090: The Influence of Momentum Ratio on the Spray Characteristics of Pintle Injector <i>Huiyuan Chen, Peng Cheng, Qinglian Li</i>	P435: Experimental Determination of Ignition Delay of Hypergolic Bipropellants <i>Mahesh Dalwani, Umakant Swami, Arindrajit Chowdhury</i>	P495: Lift-off Characteristics of n-Heptane Dilute Spray Flames in Vitiated Co-flows <i>Huifeng Gong, Qiong Yang, Zongjie Hu, Liguang Li</i>	P485: Combustion characteristics of demineralized coal pyrolysis char <i>Shaozeng Sun, Wenda Zhang, Yijun Zhao, Pengxiang</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
15:35	P314: Flame Propagation and Development of Cellular Structures of CH <sub>4</sub> /Air Premixed Flame in a Disk Burner of Variable Mesoscale Gap <i>Hyejin Jang, Nam Il Kim</i>	P296: On the Effects of Shear and Compositional Inhomogeneities in turbulent, lean, premixed flames <i>S.A. Steinmetz, M. Juddoo, W. Jin, A.R. Masri</i>	P327: Numerical Investigation of Advanced Low Temperature Combustion Techniques in Diesel Engine <i>Nikhil Khedkar, P. Brijesh, S. Sreedhara</i>	P227: Dynamical Analysis of Methanol-Dimethyl Ether Autoignition at Engine-Relevant Conditions <i>Wonsik Song, Efsthaios-Al. Tingas, Hong G. Im</i>	P273: The effect of cyclic variations on in-flame particulate morphology in a direct-injection petrol engine <i>D. Kim, Y. Zhang, Y. Gao, S. Kook, Q.N. Chan, M. Xu</i>	P068: A solar-assisted metal oxide redox system for peak-load shifting in coal-fired power plants <i>Sike Wu, Cheng Zhou, Elham Doroodchi, Behdad Moghtaderi</i>	P167: Hypergolic Ignition Induced by Binary Collision of TMEDA and WFNA Droplets: Non-monotonic Effects of Impact Parameter <i>Dawei Zhang, Peng Zhang</i>	P507: Multi-Environment PDF Modeling for Diesel Spray Combustion Processes using Tabulated Chemistry <i>Namsu Kim, Kiyoun Jung, Yongmo Kim</i>	
15:55	P318: The effect of wall heat loss on the flame behavior in a sudden-expansion channel <i>Ching-Wei Wu, Zheng-Yen Lin, Sheng-Yen Hsu</i>	P390: The structure and modelling analysis of a high Ka CH <sub>4</sub> /air stratified premixed jet flame using DNS <i>Haiou Wang, Bruno Savard, Evatt R. Hawkes, Jacqueline H. Chen</i>	P336: Engine Performance Affected by Direct Injection Timing in a Dual Ethanol Injection SI Engine <i>Nizar F.O. Al-Muhsen, Guang Hong</i>	P219: An Experimental and Numerical Study of C <sub>4</sub> H <sub>8</sub> O <sub>2</sub> esters Combustion Chemistry <i>K. N. Osipova, D. A. Knyazkov, I. E. Gerasimov, A. M. Dmitriev, A. G. Shmakov, O. P. Korobeinichev</i>	P292: The Effect of Dimethyl Ether Addition on Sooting Limits in Non-premixed Counterflow Flames <i>Zepeng Li, Yu Wang, Suk Ho Chung, William L. Roberts</i>	P173: The impact of biochars on the immobilisation of Zn(II) in contaminated soil <i>Hong Wang, Hui Zhao, Yuwei Bu, Ping Lu</i>	P059: Research on Boundary Layer Combustion and Application in High Mach Number Inlet <i>Lu Wang, Liangjie Gao, Zhansen Qian</i>	P508: On the enhancement of biodiesel droplet vaporization using electrostatic charge <i>Tushar Ahmed, Agisilaos Kourmatzis</i>	
16:15	End of Day								
18:30	<b>Conference Banquet:</b> Cockle Bay Room, The Sydney Convention Centre at Darling Harbour								

**Thursday, 14 December 2017**

8:30

**Plenary Lecture:** Advanced Optical Diagnostics at Engine Conditions, *Dr Lyle M. Pickett*

Chair: Professor Shawn Kook

Auditorium B2010

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Dr Scott Steinmetz</i>	<b>Turbulent Flames</b> <i>Professor Yongmo Kim</i>	<b>IC-Engines</b> <i>Dr Nic Surawski</i>	<b>Biomass, Coal &amp; MILD Combustion</b> <i>Dr Michael Evans</i>	<b>Soot, PAH &amp; Material Synthesis</b> <i>Professor Akira Yoshida</i>	<b>New Burners &amp; Concepts</b> <i>Professor Kumar Sudarshan</i>	<b>Gas Turbines</b> <i>Dr Sandeep Jella</i>	<b>Spray, Droplets &amp; Supercritical</b> <i>Dr Agisilaos Kourmatzis</i>	<b>Diagnostics</b> <i>Dr Callum Atkinson</i>
9:30	P319: Outwardly Propagating Spherical Flame with Cellular Instability and Laminar Burning Velocities in Methane/ethylene /air Premixed Flames <i>K. H. Van, H. J. Kim, J. Park, Oh Boog Kwon, Dae Keun Lee, Seung Gon Kim, Young Tea Guahk, Dong-Soon Noh, S. H. Chung</i>	P405: On the Joint Statistics of Mixture Fraction and Reaction Progress Variable in Mixed Modes of Combustion <i>H.C. Cutcher, A.R. Masri, R.S. Barlow, G. Magnotti</i>	P338: Preliminary comparison of chemical heat storage systems for saving exhaust gas energy in gasoline and diesel engines <i>Duc Luong Cao, Guang Hong, Tuan Le Anh</i>	P151: Mercury removal from coal-fired flue gas by modified clay minerals <i>Huan Liu, Lin Chang, Yongchun Zhao, Junying Zhang, Jihua Qiu</i>	P313: Characteristics of oxygen-enriched laminar ethylene diffusion sooting flames <i>Zhiwei Sun, Bassam Dally, Zeyad Alwahabi, Graham Nathan</i>	P170: A Study on the Basic Combustion Characteristics in a Metal Fiber Burner <i>Jaehyeon Kim, Minsoek Han, Keunseon Sim, Keeman Lee</i>	P419: Burn Rate Characterization of an Alternative Monopropellant –Hydroxyl Ethyl Hydrazinium Nitrate <i>Umakant Swami, K. Jayaraman, Arindrajit Chowdhury</i>	P510: Investigations on Ignition of Atomized Fuel-Air Mixtures and Liquid Fuel Column-air Combinations by Low Energy Laser Pulses <i>Awanish Pratap Singh, Upasana P. Padhi, Harikrishna Tummalapalli, Ratan Joarder</i>	P106: Emission Spectroscopy of the C2 Swan Bands to Estimate Temperature of the Near-Extinction Flamelets of Turbulent Premixed Flames <i>Yuzo Kawasoe, Hideki Hashimoto, Osamu Moriue, Eiichi Murase, Junichi Furukawa</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
9:50	P334: Effects of Additional Diluents on Laminar Burning Velocities and Cellular instabilities in Outwardly Propagating Methane/Ethylene-Air Premixed Spherical Flame <i>H. J. Kim, K. H. Van, J. Park, O. B. Kwon, Dae Keun Lee, Seung Gon Kim, Young Tae Ghauk, Dong soon Noh</i>	P009: Study On the Statistical Analysis Methodology of the Swirl Flame Dynamics <i>Zheng Yu, Zhang Chi, Huang Min</i>	P347: Effect of injection strategies on preignition tendency in a turbocharged single cylinder engine. <i>Eshan Singh, Adrian Ichim, Kai Morganti, Robert W. Dibble</i>	P157: A burning Pyrotechnic Film with Millimeter-wave Radiating <i>Zhu Chen-guang, Peng Ru, Xu Jing-ran, Xie Xiao</i>	P331: Soot Precursor Evolution in Diffusion Flames with Different Sooting Propensities <i>Daniel Bartos, Matthew Dunn, Mariano Sirignano, Andrea D'Anna, Assaad R. Masri</i>	P169: An experimental investigation of the heat transfer performance in a hybrid solar receiver combustor operating with the solar-only and combustion-only modes <i>Alfonso Chinnici, Zhao F. Tian, Graham J. Nathan, Bassam B. Dally</i>	P428: Ignition Delays of Blended Unsymmetrical Dimethyl Hydrazine with an Energetic Ionic Liquid <i>Umakant Swami, Mahesh Dalwani, Krishna Mohan, Arindrajit Chowdhury</i>	P016: Experimental and Numerical Investigation of Spray Characteristics of Butanol-Diesel blends <i>Sattar Jabbar, Murad Algayyim, Andrew P. Wandel, Talal Yusaf</i>	P126: Measurement on evaporation characteristics of multi-component fuel spray <i>Wenyuan Qi, Yuyin Zhang, Shunhua Yang</i>
10:10	P348: Propagation behaviors of twin premixed methane flame in a counterflow annular slot-burner under DC electric fields <i>Sung Hwan Yoon, Min Suk Cha</i>	P253: Effects of Karlovitz number on Localised Forced Ignition of Stratified Combustible Mixtures: A Numerical Investigation <i>Dipal Patel, Jiawei Lai</i>	P358: Effect of CO <sub>2</sub> Dilution on End-gas Auto-ignition in a Rapid Compression Machine <i>Yunliang Qi, Yingdi Wang, Yanfei Li, Hui Liu, Zhi Wang</i>	P466: Cold Plasma Methane Reforming <i>Amit Kumar, Anand M. S, L Rao, Dasappa S</i>	P340: Effects of Adiabatic Temperature and Chemical Composition on Soot Formation in Laminar Diffusion Flames <i>Awais Ashraf, Daniel Bartos, Matthew J. Dunn, Assaad R. Masri</i>	P284: The Role of Co-injected Hydrocarbon Gas with Oxygen in a Furnace <i>Le-Kuan Lin, Cheng-Hao Hou, Sheng-Yen Hsu, Jyun-Sheng Wang, Yung-Chang Liu, Chien-Hsiung Tsai</i>	P463: PIV Investigation on Effects of Circular DBD Plasma Actuator on Turbulent Swirling Premixed Flame <i>Sujoy Chakraborty, Masayasu Shimura, Mamoru Tanahashi</i>	P307: Droplet combustion studies on an RP-1 surrogate and its constituent fuels <i>Anand Sankaranarayanan, Arindrajit Chowdhury, Neeraj Kumbhakarna</i>	P127: An optical absorption method to deduce the temperature dependence of gas viscosity <i>Rongkang Gao, Sean O'Byrne</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
10:30	P351: Effect of fuel variation, plate material, and thickness on dynamics of precursors to blow out of shear layer stabilized premixed flame <i>Arun K Ampi, T M Muruganandam</i>	P481: Comparison of chemical mechanisms for n-dodecane at engine conditions using an unsteady flamelet model <i>Armin Wehrfritz, Bruno Savard, Evatt R. Hawkes</i>	P370: Simulation of Knock and Super-Knock in SI Engines <i>M. Jaasim, F. E. Hernández Pérez, S. Vedharaj, V. Raman, R. W. Dibble, Hong G. Im</i>	P312: Thermogravimetric Analysis of Sludge Pyrolysis Oil Mixed with Heavy Fuel Oil <i>Samuel Chatelier, Yong Hao Kuan, Guan-Bang Chen, Hsien-Tsung Lin, Ta-Hui Lin</i>	P357: An investigation of high power laser pulses on soot using an IR pump UV probe approach <i>Hamdy A. Ahmed, Matthew J. Dunn, Daniel Bartos, Assaad R. Masri</i>	P129: Experimental study on the effects of equivalence ratio & reactor length on flame characteristics in micro scale reactors <i>Maryam Yeganeh, Sadegh Tabejamaat, Amin Aramesh, Mohammadreza Baigmohammadi</i>	P464: How transverse acoustic velocity affects flame response to axial acoustic perturbations <i>Aditya Saurabh, Christian Oliver Paschereit</i>	P094: Time-resolved investigation of droplet size and velocity inside diesel fuel sprays <i>Zehao Feng, Mingzhi Zhang, Jiapei Yang, Chenglong Tang, Zuohua Huang</i>	P139: Characteristics of an acoustically forced non-premixed jet flame <i>K.K. Foo, Z.W. Sun, P.R. Medwell, Z.T. Alwahabi, G.J. Nathan, B.B. Dally</i>
10:50	Break								



Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Hong Im</i>	<b>Turbulent Flames</b> <i>Dr Thibault Guiberti</i>	<b>IC-Engines</b> <i>Dr Timothy Bodisco</i>	<b>Biomass, Coal &amp; MILD Combustion</b> <i>Professor Zongjie Hu</i>	<b>Soot, PAH &amp; Material Synthesis</b> <i>Dr Matthew Dunn</i>	<b>New Burners &amp; Concepts</b> <i>Dr Paul Medwell</i>	<b>Gas Turbines</b> <i>Dr Robert Gordon</i>	<b>Catalysis &amp; Surface Chemistry</b> <i>Professor Shuiqing Li</i>	<b>Diagnostics</b> <i>Dr Zhiwei Sun</i>
11:20	P369: Flame Modes and Combustion Characteristics of a Triple Port Burner <i>Chun-Han Chen, Chao-Wei Huang, Yueh-Heng Li</i>	P502: Temperature imaging of gaseous n-heptane flames in hot vitiated coflows <i>M.J. Evans, P.R. Medwell, Z.W. Sun, B.B. Dally</i>	P434: A Study of Natural Gas Mixing Percentage on Combustion and Emission Characteristics of a CNG-Diesel Dual-Fuel Engine <i>Ocktaeck Lim, Shubhra Kanti Das, Kyeonghun Jwa</i>	P231: Reaction Zone Structure of Syngas Combustion under MILD and Conventional Conditions <i>Santanu Pramanik, R. V. Ravikrishna</i>	P359: Experimental and kinetic modeling investigation on premixed tetralin flames <i>Yuyang Li, Wenhao Yuan, Chuangchuang Cao, Yan Zhang, Jiabiao Zou, Yizun Wang</i>	P341: A Five-Equation Model for the Simulation of Miscible, Compressible Fluids Including Molecular Species Transport <i>Michael Groom, David Youngs, Ben Thornber</i>	P465: Noise-induced dynamics in a stable thermoacoustic system: Numerical evidence of coherence resonance <i>Vikrant Gupta, Aditya Saurabh, Christian Oliver Paschereit, Lipika Kabiraj</i>	P396: Investigation of Wall Chemical Effect on Weak Flame with GC and PLIF <i>Sui Wan, Yong Fan, Kaoru Maruta, Yuji Suzuki</i>	P214: Mapping of instantaneous fuel concentration using a bundled LIBS plug <i>Hyung Min Jun, Hyunwoo Kim, Jai-ick Yoh</i>
11:40	P373: Mode-Switching Behaviour of Preheated and Diluted Flames in a Stagnation Burner <i>Bin Jiang, Robert. L. Gordon, Mohsen. Talei</i>	P506: Multi-Environment Probability Density Function Approach for Turbulent Partially-Premixed Methane/Air Flames <i>Namsu Kim, Yongmo Kim</i>	P449: Combustion of Methanol in Diesel Engine Using Diethyl Ether as Ignition Enhancer <i>R. Vallinayagam, S. Vedharaj, Mohammed Jaasim, Hong G. Im, S.M. Sarathy, R.W. Dibble</i>	P252: Large Eddy Simulation of MILD Combustion of Syngas <i>Santanu Pramanik, R. V. Ravikrishna</i>	P460: Formation of Incipient Soot Particles from Polycyclic Aromatic Hydrocarbons: A ReaxFF Molecular Dynamics Study <i>Qian Mao, Adri C.T. van Duin, K. H. Luo</i>	P509: Tomographic background-oriented schlieren techniques for three-dimensional density field reconstruction in shock-containing flows <i>R. Kirby, D. J. Tan, C. Atkinson, D. Edgington-Mitchell</i>	P500: Large Eddy Simulation of a Dual Swirl Gas Turbine Model Combustor with Self-excited Thermo-acoustic Instability <i>Zhi X. Chen, N. Swaminathan</i>	P206: Catalytic Effect of Graphene Oxide on the Oxidation of Paraffin-based Fuels <i>Lin-lin Liu, Can-yu Zhang, Yin Wang, Song-qi Hu</i>	P324: A Tomographic Background-Oriented Schieren Method for 3D Density Field Measurements in Heated Jets <i>C. Atkinson, S. Amjad, J. Soria</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
12:00	P115: Flame Instability of Synthetic Liquefied Petroleum Gas and Natural Gas on Ceramic Porous Burner <i>Amornrat Kaewpradap, Sumrerng Jugjai</i>	P280: An Experimental Study on Flame Behavior with Porosity of Center Plate in a Low-Swirl Combustor <i>Minsoek Han, Chul-Ho, Kim, Keeman Lee</i>	P452: Characteristics of Gasoline/Methane Dual_Fuel Combustion in a Spark-Ignited Engines <i>Nan Li, Haiqiao Wei, Jiaying Pan, Jianxiong Hua, Gequn Shu</i>	P288: On MILD Combustion in a Perfectly Stirred Reactor with Exhaust Gas Recirculation <i>Yang Zhang, Yuxin Wu, Hai Zhang, Qing Liu, Junfu Lv, Guangxi Yue</i>	P471: Laser-Induced Incandescence in Turbulent Non-Premixed Flames at Elevated Pressure <i>Wesley Boyette, Emre Cenkler, Thibault Guiberti, William Roberts</i>	P204: Effect of Miller Cycle and Fuel Injection Strategy on Performance of Marine Diesel Engine <i>Xiuxiu Sun, Xingyu Liang, Peilin Zhou, Yuehua Qian, Teng liu, Bo Liu</i>	P505: Numerical studies on characteristics of perforated and slotted plates under thermoacoustic instability condition <i>Seungtaek Oh, Kiyoun Jung, Youngjun Shin, Yongmo Kim</i>	P503: Characteristics of Hydrogen produced by Methanol Reformation in Compact Whirling Orbital Plate Fluidized Bed Reactor <i>Prashant Nehe, Sudarshan Kumar, V. Mahendra Reddy</i>	P366: Flame temperature measurement using color-ratio pyrometry with a consumer grade DSLR camera <i>Anand Sankaranarayanan, Umakant Swami, Arindrajit Chowdhury, Neeraj Kumbhakarna</i>
12:20	P468: Influence of gas expansion on the interaction between spatially periodic shear flow and premixed flame <i>Ruixue Feng, Hongtao Zhong, Damir Valiev</i>	P183: Numerical Simulation of LPG-Hydrogen Jet Diffusion flames <i>Muthu Kumaran S, Vamsi Krishna Ch., Vasudevan Raghavan</i>	P461: A Computational Study of Pre-ignition to Detonation Transition in a One-Dimensional Chamber <i>Aliou Sow, Mohammed Jaasim, Francisco E. Hernández Pérez, Hong G. Im</i>	P496: Combustion characteristics of a methane jet flame in hot coflow of O <sub>2</sub> /H <sub>2</sub> O vs. O <sub>2</sub> /N <sub>2</sub> <i>Z. Shu, C. Dai, K. Cheong, J. Mi</i>	P499: The investigation of the performance of the after-treatment devices on the diesel and biodiesel particles <i>Yi Guo, Svetlana Stevanovic, Mohammad Jafari, Puneet Verma, Richard Brown, Chiemiwiwo Godday Osuagwu, Barbara D'Anna, Zoran Ristovski</i>	P339: Kinetic Modeling of Engine Combustion: an Uncertainty Analysis <i>Song Cheng, Yi Yang, Michael J. Brear</i>	P513: Turbulence Model Effects on Multiple-Swirl Flame Aerodynamics <i>Sandeep Jella, Wing Yin Kwong, Jeffrey Bergthorson, Gilles Bourque, Adam Steinberg</i>	P163: Development of SCR System with Optimized DEF Dosing Strategy to Meet BS-VI Emission Norms <i>Dhanyakumar K, Prachetas K, Swapnil S, Amit P, Brijesh P</i>	P276: Propane Spray Structure in an Optically Accessible Direct Injection, Spark Ignition Engine: A Post-Processing Algorithm for Planar Laser Mie-Scattering <i>H.B. Aditiya, J.S. Lacey, M.J. Brear, R.L. Gordon, C. Lakey, S. Ryan, B. Butcher</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
12:40	P469: The Effect of Carbon Dioxide Diluted on Combustion Characteristic with a Tubular Flame Burner <i>Jie Hu, Baolu Shi, Kazuhiro Hayashida, Dasukei Shimokuri</i>	P279: Hybrid RANS/PDF simulations of the Adelaide jet-in-hot-coflow burner using 3D FGM tabulated chemistry <i>Ashoke De, Gerasimos Sarras, Dirk Roekaerts</i>	P474: LES on Knocking Combustion and End-gas Auto-ignition Based on A Downsized Spark-ignited Engine <i>Jiaying Pan, Haiqiao Wei, Gequn Shu</i>	P498: Preliminary investigation by experiment on the premixed MILD combustion of C <sub>3</sub> H <sub>8</sub> in a cylindrical furnace <i>Kin-Pang Cheong, Guochang Wang, Bo Wang, Jianchun Mi</i>	P512: Application of spatially resolved emission spectroscopy to study low-pressure premixed ethylene/air sooting flames <i>S. Algoraini, S. Zhiwei, Z.T. Alwahabi</i>	P197: Complete catalytic oxidation of propene over thin film catalyst <i>Achraf El Kasmi, Guan-Fu Pan, Zhen-Yu Tian</i>	P246: Determination of Pressure Waveform in a T-burner Based on Standing Wave Ratio <i>Anchen Song, Junwei Li, Bingbing Sun, Xinjian Chen, Ningfei Wang</i>	P271: Surface mechanism for the ammonia oxidation over Pt(111) <i>Juan D. Gonzalez, B. S Haynes, Alejandro Montoya</i>	P277: OH Imaging in a Non-Uniform, Hydrogen-Fueled Scramjet Engine <i>Tristan Vanyai, Stefan Brieschenk, Timothy J. McIntyre</i>
13:00	Lunch								
14:15	<b>Plenary Lecture:</b> The Challenges and Prospects of Spark Ignition Engines and Fuels, <i>Professor Michael J. Brear</i> Chair: Professor Evatt Hawkes Auditorium B2010								

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
	<b>Laminar Flames</b> <i>Professor Hong Im</i>	<b>Turbulent Flames</b> <i>Dr Thibault Guiberti</i>	<b>IC-Engines</b> <i>Dr Timothy Bodisco</i>	<b>Biomass, Coal &amp; MILD Combustion</b> <i>Professor Zongjie Hu</i>	<b>Soot, PAH &amp; Material Synthesis</b> <i>Dr Matthew Dunn</i>	<b>New Burners &amp; Concepts</b> <i>Dr Paul Medwell</i>	<b>Gas Turbines</b> <i>Dr Robert Gordon</i>	<b>Catalysis &amp; Surface Chemistry</b> <i>Professor Shuiqing Li</i>	<b>Diagnostics</b> <i>Dr Zhiwei Sun</i>
15:15	P476: Measurements of Laminar Burning Velocity of Gasoline Surrogate Fuel/Air/EGR Gas Mixtures <i>Shota Doi, Hirokazu Uesaka, Ryosuke Matsui, Masamichi Matsuura, Ryunosuke Okazaki, Hidefumi Kataoka, Daisuke Segawa</i>	P281: Investigation of NOx in pilot stabilized flames using Eddy Dissipation Concept model <i>Rohit Saini, Ashoke De</i>	P477: The principle of determining the optimized operating parameters based on the adopted fuel property in RCCI engines <i>Yaopeng Li, Ming Jia, Yachao Chang, Maozhao Xie</i>	P142: Cu and Cu2O oxidation in chemical looping processes: a first-principles theory study <i>Jie Cao, Haibo Zhao, Yongliang Zhang</i>	P361: Prediction of sooting tendency of gasoline surrogate fuels <i>Muhammad Kashif, Guillaume Legros, Jérôme Bonnetty</i>	P316: Assessment of 3D printing technology for potential application towards manufacturing composite propellants <i>Anirudha Ambekar, Jai-ick Yoh</i>	P128: Linear instability and DC shift in tactical missile solid rocket motors – a computational study <i>Vishal Wadhai, Varunkumar S</i>	P350: Properties of in-cylinder fuel reformation and ignition characteristics of CO/H2/CH4 mixtures <i>Yuki Murakami, Hisashi Nakamura, Takuya Tezuka, Susumu Hasegawa, Go Asai, Kaoru Maruta</i>	P297: Schlieren CT Measurement of 3D Density Distributions of Flame Kernels of Spark-Ignited Direct-Injection of Free, Cavity-Guided and Plane-Guided Fuel Jets <i>Ahmad Zaid Nazari, Yojiro Ishino, Takanori Motohiro, Ryoya Yamada, Yuta Ishiko, Yu Saiki</i>

Room	LT-1040	CS-1050	LT-1130	CS-1060	CS-1170	CS-2140	CS-2150	CS-2090	CS-2080
15:35	P487: Laminar lifted flames in diesel engine conditions <i>D.K. Dalakoti, A. Wehrfritz, B. Savard, H. Wang, E.R. Hawkes</i>	P095: RANS/MMC modeling of piloted turbulent dimethyl ether/air jet diffusion flame <i>Sanjeev Kumar Ghai, Santanu De, Ashoke De</i>	P343: Influence of bio-syngas hydrogen fraction on spark ignited engine in-cylinder heat transfer and combustion dynamics <i>Anand M Shivapuji, S Dasappa</i>	P074: Autoignition behavior of Fuel Rich Natural Gas/Air Combustion Product Jet Discharged into Quiescent Air <i>Saeedreza Zadsirjan, Sadegh Tabejamaat, Masoud E. Attarzadeh</i>		P212: Characteristics of Pure Oxygen/methane Flames in a Rapidly Mixed Tubular Flame Burner <i>Baolu Shi, Bo Li, Guoxing Wang, Xiaoyao Zhao, Jie Hu, Ningfei Wang</i>	P352: Stabilization and Emission Characteristics of Ammonia Flames in a Micro Gas Turbine Combustor <i>Ekenechukwu C. Okafor, Kazuma Sakai, Akihiro Hayakawa, Taku Kudo, Osamu Kurata, Norihiko Iki, Hideaki Kobayashi</i>	P192: Metallic mesh and quartz wafer as emitter-filter for a thermophotovoltaic system <i>J.R. Llobet, X. Kang, and A. Veeraragavan</i>	P401: Phase resolved PLIF measurements in puffing plumes <i>Kuchimanchi K Bharadwaj, Debopam Das, Pavan K Sharma</i>
15:55	End of Day								
16:00	<b>Farewell Reception: Abercombie Building</b>								