# 3rd International Workshop on Near-Wall Reactive Flows 2022      Session 3: Posters

| No. | Author name | Affiliation | Country | Title |
|---|---|---|---|---|
| 1 | Marius Schmidt, Cooper Welch, Lars Illman, Andreas Dreizler and Benjamin Böhm | TU Darmstadt | Germany | Boundary layer flow measurements in a motored IC engine at engine speeds up to 2500 rpm |
| 2 | Zhaoping Ying and Eva Gutheil | Heidelberg University | Germany | Multiple Structures of Laminar Fuel-Rich Ethanol/Air Spray Flames in the Counterow Configuration |
| 3 | Jonathan H. Frank, Nils Hansen, David L. Osborn, Bo Zhou, Erxiong Huang, Angie Zhang, Coleman X. Kronawitter, Ambarish Kulkarni, Sadi Gurses | SANDIA | USA | Operando Near-Surface Imaging of the Multi-Component Gas Phase above a Catalyst |
| 4 | Rana Faltsi,Markus Braun, Thomas Esch, Ralf Kröger, Dimitris Sofialidis | ANSYS Germany GmbH | Germany | Implementation, verification and validation of a new model to predict heat transfer in evolving thin films. |
| 5 | Antoine Blaise, Sylvain Petit, Frédéric Grisch, Pradip Xavier | CORIA | France | Experimental Study of the Interaction between a Turbulent Flame and a Cooling Air Film |
| 6 | T. J. P. Karpowski, S. Hartl, S. Popp, M. Steinhausen, C. M. Arndt, W. Meier, C. Kraus, H. Bockhorn, C. Hasse, F. Ferraro | TU Darmstadt | Germany | Multi-regime flame anchoring in a swirl stabilized gas turbine model combustor |
| 7 | Sanjeev Kr. Ghai, Umair Ahmed , Nilanjan Chakraborty, Markus Klein | Newcastle Univerversity, Universität der Bundeswehr | UK/Germany | Analysis of premixed flames during flame-wall interaction with inert walls in turbulent boundary layers using Direct Numerical Simulations |
| 8 | G. Indelicato, P. E. Lapenna, A. Remiddi, F. Creta | University of Rome La Sapienza | Italy | Wall-modeling in liquid rocket engines: flame-wall interaction and cryogenic heated flows |
| 9 | S. Recio Balmaseda, H. Nicolai, P. Koob, M. Greifenstein, A. Dreizler, C. Hasse | TU Darmstadt | Germany | Numerical investigation of effusion cooling air influence on the CO emissions for a single sector aeroengine combustor |
| 10 | Hatim Ennayar, Philipp Brockmann, Jeanette Hussong | TU Darmstadt | Germany | Quantitative study of the mixing process during droplet impact onto a thin liquid film using LIF and film thickness measurements |
| 11 | Milad Bagheri, Holger Marschall, Martin Wörner | TU Darmstadt | Germany | Impingement of E-Fuel droplets on a wall at elevated gas pressure – A numerical study on hydrodynamic similitude |
| 12 | C. Kuntz, P.J. Jägerfeld, J. Mmbaga, R.E. Hayes, O. Deutschmann | KIT | Germany | Coupling of liquid and surface chemistry in urea SCR systems |
| 13 | T. Häber, S. Schulz, F. Secchic D. Gatti, D. Trimisb, B. Frohnapfel, R. Suntz | KIT | Germany | Experimental and numerical investigation of turbulent impinging jets on rough surfaces |
| 14 | Fredherico Rodrigues, Jose Maria Garcıa-Oliver, Daniel Mira | BSC | Spain | Implementation of the Partially Stirred Reactor Model in the Finite Element Code Alya |
| 15 | Amir Mardani, Amir A.Beige | Sharif University Of Technology, Tehran, Iran | Iran | Numerical Investigation of Flame Attachment to Base Plate of a Gas Turbine Model Combustor |
| 16 | F. Chitgarha, F. Ommi and M. Farshchi | Tarbiat Modares University | Iran | Numerical Investigation of preferential diffusion effects by 3DFGM chemistry model |
| 17 | Bopp, M. and Jakirlic, S | TU Darmstadt | Germany | Performance assessment of an eddy-resolving Reynolds stress model in computing complex impinging-jet flows |
| 18 | Christopher Geschwindner, Daniela Goedderz, Tao Li, Johannes Bender, Benjamin Böhm, Andreas Dreizler | TU Darmstadt | Germany | Combining laser-optical diagnostics with chemical decomposition analyses for the investigation of flame retarded polypropylene |
| 19 | K. Koschnick, J. Lill, A. Dreizler, D. Geyer | HDA/TUDarmstadt | Germany | Towards Spatially resolved Operando Diagnosis of the Gas-Phase in Heterogeneous Catalysis Using a Novel RamanSpectrometer |
| 20 | Pati, Gierth, Hasse | TU Darmstadt | Germany | Numerical investigation of the near wall flow inside internal combustion engine using multicycle LES approach |
| 21 | S. Schubert, G. Lamanna | Uni Stuttgart | Germany | µ-PIV measurement of an impacting droplet onto a thin liquid film |
| 22 | K. Niemietz and H. Pitsch | RWTH Aachen | Germany | LES Model Development of CO Models for Premixed Turbulent Jet Flames with Flame-Wall Interaction |
| 23 | Emiliano M. Fortes Soplanes, Daniel Mira Martinez | BSC | Spain | A new preferential diffusion model using machine learning in Finite elements method code Alya |
| 24 | Yongxiang Li, Florian Ries, Luis Felipe Rico Cortes, Hardy Hamel, Kaushal Nishad | TU Darmstadt | Germany | Prediction of heat and fluid flow in a realistic exhaust gas system using Wall-Modeled Large Eddy Simulation |
| 25 | Florian Ries,Yongxiang Li, Hardy Hamel, Kaushal Nishad | TU Darmstadt | Germany | Correlation Functions of Orifice Plate Flowmeters for Exhaust Gas Flow based on Wall-Modeled Large Eddy Simulation Results |
| 26 | Bogdan Danciu , Christos Frouzakis , Nicolas Noiray | ETH | Switzerland | Multi-Cycle DNS of Flows in a Premixed Otto Engine at High Engine Speeds |
| 27 | Pascal Johe, Florian Zentgraf, Max Greifenstein, Andreas Dreizler | TU Darmstadt | Germany | Quantitative Multi-Parameter Measurements using Advanced Laser Diagnostics in a Pressurized Side-Wall Quenching Burner |
| 28 | Luuk Altenburg, Gersom Willems, Sikke Klein, Mark Tummers | TU Delft | Netherland | Unconfined and confined flashback characteristics of hydrogen-air flames |
| 29 | Kaushal Nishad, Yongxiang Li, Florian Ries, and Christian Hasse | TU Darmstadt | Germany | Modeling and numerical investigation of AdBlue spray-wall interaction in SCR-DeNOx system using conjugate heat transfer approach |
| 30 | Patrick Treffehn, Maximilian Kronenberger, Dennis Gratzfeld, Matthias Olzmann | KIT | Germany | On the Role of Water in Urea Condensation Reactions |
| 31 | Alexander Nicolas, Florian Zentgraf, Mark Linne, Andreas Dreizler, Brian Peterson | Edinburgh/TUDarmstadt | UK/Germany | Investigation into Turbulent Flame-Wall Interaction using Wavelet-based Optical Flow Velocimetry (wOFV). |
| 32 | Anthony O. Ojo, David Escofet-Martin, and Brian Peterson | Edinburgh/Valencia | UK/Spain | On the use of (Sc,Y)VO4:Bi3+ to study increased surface temperature effects during flame-wall interaction in narrow passages |
| 33 | J. Collins, D. Escofet-Martin, A. O. Ojo, A. Padhiary, B. Peterson | Edinburgh/Valencia | UK/Spain | Simultaneous PLIF, Phosphor Thermometry, and 1D Rotational CARS to Study Flame/Temperature Coupling in a Side-Wall Quenching Burner |
| 34 | Guenther C. Krieger Filho, Fililpi F. Martins Silva, Antonio Luis Pacifico, Fernando L. Sacomano Filho | University of São Paulo | Brasil | ECFM combustion parameters study for DI ethanol fired single cylinder research engine |
| 35 | Mouldi Chrigui, Kambale Mondo, Fathi Hamdi | The University of Gabes, Tunisia | Tunisia | Modeling of Spray injection and combustion of diesel fuel surrogates within IC Engine |
| 36 | Malki Maliha, Dr. Heiko Kubach, Prof. Dr. Thomas Koch | KIT | Germany | Optical Investigation on the interaction between a fuel-spray and an oil wetted cylinder wall under engine relevant conditions |
| 37 | Senda Agrebi and Amsini Sadiki | TU Darmstadt | Germany | Effect of Differential Diffusion and Non-adiabaticity on the Exergy Analysis of a Confined Turbulent Combustion System |
| 38 | Florian Zentgraf, Pascal Johe, Alexander Nicolas, Suad Jakirlic, Robert S. Barlow, Benjamin Böhm, Brian Peterson, Andreas Dreizler | TU Darmstadt | Germany | On the Evolution of Reacting Boundary Layers during Flame-Wall Interaction |