Submission name	Authors	Affiliation
Mass transfer in bubbly flows at Different configurations and varying bubble composition	Roland Rzehak, Haris Khan	Helmholtz-Zentrum Dresden - Rossendorf
A practical computational model to estimate PAH emission from furnaces	Kurian J. Vachaparambil, Balram Panjwani	SINTEF
Furnace tapping and impact of temperature	Jan Erik Olsen, Stein Tore Johansen	SINTEF
Solutal Marangoni flow around a growing hydrogen bubble: An immersed boundary simulation study	Faeze Khalighi	Power and Flow Group, Department of Mechanical Engineering, Eindhoven University of Technology, Eindhoven, the Netherlands
On the importance of numerical calibration in recurrence CFD simulations	Hannes Lumetzberger	Johannes Kepler University, K1-Met
Understanding the continuous casting process with CFD modelling: the impact of microscopic dynamics on macroscopic scales	Christine Gruber	k1-met
Computational modelling of a plasma jet	Sai Likitha Siddanathi	Lut.se
Computational analysis of normal and catastrophic interaction of erythrocytes, platelets and glycoproteins in blood flow	Cyrus K Aidun	GATECH.edu
A pragmatism-based model of alumina distribution in industrial Hall-Heroult cells	Stein Tore Johansen, Kurian J. Vachaparambil, Asbjorn Solheim, Kristian Etienne Einarsrud, Ryan M. Soncini, Kim Ronny Elstad, Jayson Tessier	SINTEF
A practical approach to calculating inertial forces for non-trivial subsea structures using CFD simulation	Maciej Kryś	TechnipFMC, Krakow, POLAND
3D Bubble Shape Reconstruction from 2D Imagery Using CNNs	Douwe Orij	Eindhoven University of Technology
On Model Assisted Measurements and Applications	Eirik Manger	Hydro
Numerical Study on Transport of Respiratory Droplets in Ventilated Indoor Environments	Yi Feng(a*), Dongyue Li(b), Daniele Marchisio(a), Marco Vanni(a), Antonio Buffo(a)	Politecnico di Torino
CFD simulation of the filling of a high-pressure hydrogen tank	MARCER Richard	Principia
Prediction of mass transfer regimes in a steelmaking ladle.	Pascal Gardin, Alexey Matveichev	ArcelorMittal Global R&D
Numerical modeling of the submerged arc furnace	Moritz Eickhoff, Suhas Surya Narayana Murthy, Thomas Echterhof, Herbert Pfeifer	Department for Industrial Furnaces and Heat Engineering, RWTH Aachen University, Aachen, Germany
CFD analysis of ultrasonic vibrations in enhancing recycled polymer extrusion efficiency	Jakob Buist, Tijmen Mateboer	University of Applied Sciences Windesheim, Zwolle, The Netherlands
CFD simulation of organic dust deflagration in a vertical channel	Simon Schneiderbauer, Georg Meyer	Department of Particulate Flow Modeling, JOHANNES KEPLER UNIVERSITY
Effect of bubble size polydispersity, lift and dispersion models in predicting gas distribution in alkaline electrolyzers	Manjil Ray, Rodney Fox	Iowa State University
Single bubble dynamics under the influence of Marangoni force	Mahdi Saeedipour, Sadra mahmoudi	, Institute of Process Engineering, Johannes Kepler University Linz
Interface-resolved large eddy simulations of primary breakup in metal melt gas atomization	Dennis Thuy, J.J.C. Remmers, N.G. Deen, G. Finotello	Power & Flow group, Eindhoven University of Technology, Eindhoven, The Netherland
CFD-DEM simulation of chemical looping gasification of biogenic residues at 1 MWth scale	Christoph Graf*, Falah Alobaid, Jochen Ströhle, Bernd Epple	Technical University Darmstadt, Department of Mechanical Engineering, Institute for Energy Systems and Technology

Enhanced Aeroacoustic source estimation using Physics-Informed Neural Networks	Sai Karthikeya Vemuri	Computer Vision Group, Friedrich Schiller University Jena, Germany.
Unprecedented Insight into the Thermal Processing of a Blast Furnace	Bernhard Peters	University of Luxembourg
CFD Simulation of Melt Flow in a Pilot Container Glass Furnace: Investigation of the Influence of the Ratio of Electrical Power to Burner Power on the Melt Flow	Kathrina Theisen, Moritz Eickhoff, Herbert Pfeifer	Department for Industrial Furnaces and Heat Engineering, RWTH Aachen University, Aachen, Germany
MultiMorph - A Morphology-Adaptive Multifield Two-Fluid Model	Fabian Schlegel, Matej Tekavčič, Richard Meller	Helmholtz-Zentrum Dresden-Rossendorf e.V., Bautzner Landstr. 400, 01328 Dresden, Germany
Towards the understanding of the effect of non-Newtonian liquids in binary droplet collisions	Arie H. Huijgen MSc	Department Chemical Engineering and Chemistry, Eindhoven University of Technology
Modeling a pilot furnace for manganese alloys.	Manuel Sparta, Vetle Kjær Risinggård*	NORCE Norwegian Research Centre
How influences wall roughness the separation efficiency of gas cyclones for different particle size spectra	Martin Sommerfeld	Otto-von-Guericke University Magdeburg
A CFD-CPM model for the simulation of the fluidization of fine-grained ores	Simon Schneiderbauer	Department of Particulate Flow Modelling JOHANNES KEPLER UNIVERSITY
Optimization of mesh coupling between nozzle and mould for modelling turbulent flow during continuous casting	Johanna Hjeltström, Pavel E. Ramirez Lopez, Anton Sundström, Gunnar Hellström	LTU and Swerim
Integration of Deep Learning and 3D CFD-PBM Model for Characterizing Mg(OH)2 Precipitation	Antonello Raponi, Daniele Marchisio	Politecnico di Torino
CFD of a Flow Conditioning Unit	Pablo Matias Dupuy, Netaji Ravi Kiran Kesana	Equinor
Implicit U-Net Enhanced Fourier Neural Operator for Long-Term Dynamics Prediction in Turbulence	Zhijie Li	Department of Mechanics and Aerospace Engineering, Southern University of Science and Technology, Shenzhen 518055, China.
Enhancing Extrusion Performance: Macroscopic Analysis of Dispersive Mixing Sections	Jakob Buist	University of Applied Sciences Windesheim, Zwolle, The Netherlands
Numerical Study of Entrance Lengths and Gap Instabilities in Eccentric Annular Flow	Åsmund Aamodt Resell	University of Stavanger
A novel practical approach to transient thermal analyses in the oil and gas field	Damian Dywan	TechnipFMC
A Model of Freezing a Sea-Water Droplet Moving in a Cold Air	Dmitri Eskin, Georgii Fisher, Mikhail Vulf	University of Alberta, Canada
Multiphase CFD model of plugging in cohesive slurries	Boris Balakin Pavel Struchalin	Høgskulen på Vestlandet
Hydrodynamics Improvement of a Pelletizer Chamber Using Computational Fluid Dynamics	Thiago Roberto Almeida	braskem
CFD Simulation of Natural Gas and Hydrogen Oxyfuel Combustion: Comparison of kinetic mechanisms, combustion mechanisms and WSGG radiation models	Franziska Ott, Nico Schmitz	Department for Industrial Furnaces and Heat Engineering, RWTH Aachen University
A particle scale model of charge and slurry behaviour in SAG mills including coarse particle breakage, attrition and slurry phase grinding and transport	Paul W. Cleary, Matt D. Sinnott, Gary Delaney and Rob D. Morrison	CSIRO Data61, Clayton, Australia
Investigation of submerged massive gas injection into liquid: numerical simulations and experimental observations	Mahdi Saeedipour	Department of Particulate Flow Modelling, Johannes Kepler University, Austria
Numerical prediction of flow morphologies in horizontal feed pipes	Thomas Höhne	HZDR

Experimental Study on Sticking Behavior during Iron Oxide Reduction for the Metal Fuel Cycle.	Nicole Stevens	Eindhoven University of Technology
Improving Flow Balancing: Employing GNF-X(M) for Predicting Flow Profile	Jakob Buist, Jordin van 't Veld	University of Applied Sciences Windesheim, Zwolle, The Netherlands
Modelling of Flow through Multi-Phase Porous Media for Fuel Cells	Kshitij Neroorkar, Mohit Tandon, Jeremy HIRA	Siemens Digital Industries Software
Simulation of melt flow in steel continuous casting considering transient clogging of submerged entry nozzle	Hadi Barati	K1-MET GmbH
Modelling Effects of Lancing into Process Material Through Furnace Tap-Holes	Markus Erwee, Quinn Reynolds Johan Zietsman	Samancor Chrome, University of Pretoria
A Comparative Study of Different CFD-codes for Fluidized Beds	Parindra Kusriantoko, Per Fredrik Daun, Kristian Etienne Einarsrud	Department of Materials Science and Engineering NTNU
Blockage prediction in multiphase flow with cohesive particles using machine learning	Nazerke Saparbayeva, Boris V. Balakin, Pavel G. Struchalin and Sergey Alyaev	Department of Mechanical and Marine Engineering, Western Norway University of Applied Sciences
Computational modelling of electric arc behaviour in direct-current smelting furnaces using hydrogen as a reductant	Quinn G. Reynolds*, Isabel J. Geldenhuys, HÃ¡kon V. Haraldsson, Sverre G. Johnsen, Rodney T. Jones, Yonatan A. Tesfahunegn, and Buhle S. Xakalashe	Mintek
Cross-validation of MHD frameworks in Ansys Fluent and OpenFOAM using laboratory arc chamber	Yonatan Afework Tesfahunegn	Department of Engineering, Reykjavik University
Surfactant-Polymer Interactions in a Combined Enhanced Oil Recovery Flooding	Pablo Druetta	Department of Chemical Engineering, Faculty of Science and Engineering, University of Groningen\n\nNijenborgh 4, 9747 AG, Groningen, the Netherlands
Gas-Solid Injection in Fluidized Beds for Biomass Wastes Valorization	Lucas Massaro Sousa, Benjamin AMBLARD, Sina TEBIANIAN	IFP Energies nouvelles, Solaize, France
Comparison of dimethyl ether and natural gas combustion in a swirl-stabilized industrial burner using CFD simulations	Nico Schmitz, Moritz Diewald	Department for Industrial Furnaces and Heat Engineering, RWTH Aachen University
Development of a CFD model for supersonic gas flow in a close-coupled atomizer	Angelica Lantto*, Pavel Ramirez Lopez 2,3, Mikael Risberg 1 & Hyunjin Yang 4	Luleå U. of Technology, Swerim AB, KTH,Inha U.
Employing CFD to de-risk the design of a pilot for a novel adsorption-based CO2 capture reactor technology	Jan Hendrik Cloete*, Schalk Cloete	SINTEF
Investigating Thermal Dynamics in Submerged Arc Furnaces through Numerical and Water Modeling	Umair Jamil Ur Rahman * Vinod Dhiman	University of Twente
LES study and comparison with experiments of an axial-radial difuser configuration	Are J. Simonsen	SINTEF
Numerical and Experimental comparison of windflow over the NTNU campus.	Are J. Simonsen	SINTEF
A CFD parametric study for the optimized catalyst layerâ€™s thickness and porosity based on the performance of a zero-gap alkaline water electrolyzer (AWE) cell	Muhammad Asim Sarwar	LUT, Finland
Direct numerical simulation of mass transfer at the oil water interface in a model metallurgical ladle.	S. De Rosa* (1,2), J. Maarek (2,3), N. Joubert (2,3), S. Zaleski (2,3,4),	U. Napoli, Sorbonne Universitat, CNRS
Development of dynamic boundary condition adjustment for the CFD modelling of the freeboard conditions within semi-open furnaces	Phil Conradie*, Stephan Louw,	Metix

Towards predicting cavitation collapse effects in Eulerian CFD model	Suat Canberk Ozan 1,2*, Pascal Müller 3, Jan Hendrik Cloete1	SINTEF
Multiphase flow dynamics in mini-channels used in water electrolysis	Paul Roger Leinan*, Paal Skjetne, Loïc Duffo	SINTEF
Flow structures in different sized stent grafts used for abdominal aortic aneurisms	Paal Skjetne*, Eirini Kardampiki, Karen-Helene Støverud, Sigrid Kårstad Dahl, Reidar Brekken	SINTEF
Three Phase Modelling of a Coarse Particle Flotation Machine	Peter Witt, Yuqing Feng and Krishna Mohanarangam,	CSIRO Mineral resources