10th OpenFOAM Conference

Agenda November 8, 2022

10:00 AM	**Platform Opening**		
10:15 AM	**Opening Plenary - Welcome and Introduction from ESI Group**		
10:30 AM	**Keynote: How can we effectively use CFD simulation to assess airborne disease and air quality risks,** *Prof. Catherine Noakes, University of Leeds*		
11:30 AM	**Meet the expert session**		
2:00 PM	**Closing Plenary - OpenFOAM Governance Round Table**		
3:00 PM	**Keynote: OpenFOAM Adoption by General Motors,** *Dr. Moududur Rahman, General Motors*		
	Automotive and Transportation	**Artificial Intelligence**	**Environment and Health**
On demand	**VOF-based concentration-gradient-driven mass transfer model for water evaporation** JungHoon Lee, AUDI and TECHNICAL UNIVERSITY OF MUNICH	**The importance of wind simulation to find in real time the optimal flight trajectory in drones operations** Francisco Chinesta, ARTS ET MÉTIERS INSTITUTE OF TECHNOLOGY	**Monitoring of the behaviour of intracranial aneurysms with OpenFOAM** Jozsef Nagy, EULERIAN SOLUTIONS
On demand	**A statistical approach for optimising HPC costs in high-fidelity CFD simulations with OpenFOAM** Charlie Mockett, UPSTREAM CFD	**A reduced order model for heated rear window using the method of weighted residuals** Sergey Lesnik, WIKKI	**PermaFoam: using the High performance computing capabilities of OpenFOAM for permafrost modeling** Laurent Orgogozo, UNIVERSITY TOULOUSE
On demand	**Implementation of the SABCM transition model in OpenFOAM** Pratik Karale, FRAUNHOFER IWES	**A deep learning approach for pedestrian wind comfort prediction in the early design stage** Pia Riedel, ARUP GERMANY	**Evaluation of fabric duct air conditioning system for a large exhibition hall using OpenFOAM** M. Munirajulu, LARSEN & TOUBRO
On demand	**Cabin thermal comfort analysis using a transient 1D-3D coupled analysis with TAITherm, OpenFOAM, and a 1D system tool FMU** Vishnuvardhan Ranganathan, THERMOANALYTICS INC	**Real-time assessment of ventilation efficiency in mines: Accuracy improvement with data clustering and support vector classification** Asier Juan Alejandre, ITAINNOVA	**Turbulence models evaluation for indoor flows** Célia Almeida, INSTITUTO SUPERIOR DE ENGENHARIA DO PORTO
On demand	**CFD analysis of a monorail vehicle under the influence of crosswind and oncoming traffic** Guido Langer, OWL UNIVERSITY OF APPLIED SCIENCES AND ARTS	**A collaborative framework for generating and visualizing parametric results of CFD simulations** Carlos Monferrer, SIMZERO	**Comparing results from OpenFOAM and ANSYS FLUENT with physical tracer study in a Hairpin-Shape Ozone Contactor for water treatment** Jie Zhang, CAROLLO ENGINEERS
On demand		**Simulation of the distribution of aerosols in public transport to determine the infection risk using Model Order Reduction** Sebastien Vilfayeau, ESI	**Converting 2D Geospatial files into OpenFOAM supported 3D stereolithography files using free and open source software tools – Challenges and opportunities** Manavalan, CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING
	Multiphase and Process Industry	**Heat Transfer and Energy**	**HPC and OpenFOAM Technology**
On demand	**An efficient VoF-to-Lagrangian extension for spray breakup simulations** Martin Becker, DHCAE TOOLS	**Uncertainty quantification of heat transfer in a trapezoidal micro-channel with a semi-circular crosssection** Shantanu Shukla, UNI EXETER & INDIA INSTITUTE OF TECHNOLOGY	**Optimized PETSc-HYPRE library for GPU-accelerated simulation in OpenFOAM** Qi Yang, METAX INTEGRATED CIRCUITS
On demand	**Improvement of a solver to model the formation of Polyurethane foams** Sahrish Batool Naqvi, UNIVERSITY OF MINHO	**Simulations of a centrifugal fan at different flow conditions using OpenFoam and comparison with commercial packages** Mohammad Moshfeghi, UNIVERSITY OF EXETER	**A block-coupled vertex-centred finite volume method for nonlinear solid mechanics using PETSc** Philip Cardiff, UNIVERSITY COLLEGE DUBLIN
On demand	**A simplified approach for the simulation of unconstrained melting in macrocapsules** Daniel Hummel, OSTBAYERISCHE TECHNISCHE HOCHSCHULE	**Numerical simulation of boiling flows** Mirco Magnini, UNIVERSITY OF NOTTINGHAM	**Towards distributed linear solvers on GPUs using Ginkgo** Gregor Olenik, KARLSRUHE INSTITUTE OF TECHNOLOGY
On demand		**Implementation of a surrogate-based shape optimization workflow for bionically modified tidal turbine blades using OpenFOAM** Tim Marske, UNIVERSITY OF DUISBURG-ESSEN	**An upwind vertex centred finite volume algorithm for large strain contact dynamics in OpenFOAM** Callum J Runcie, UNIVERSITY OF GLASGOW
On demand			**Structured data management and HPC: More efficient simulations with SCALE.sdm and GNS** Christopher Woll, GNS SYSTEMS/Marko Thiele, SCALE
	END OF DAY		

***All timings are in Central European (CET)**
This is a tentative agenda, subject to change.