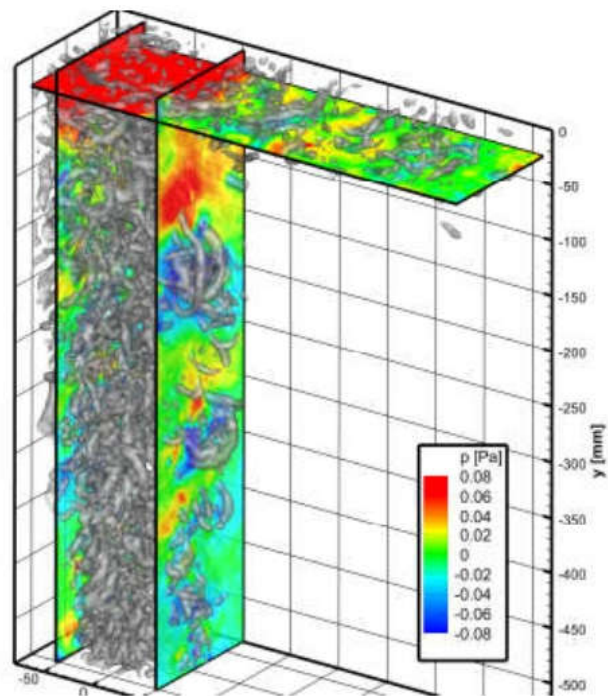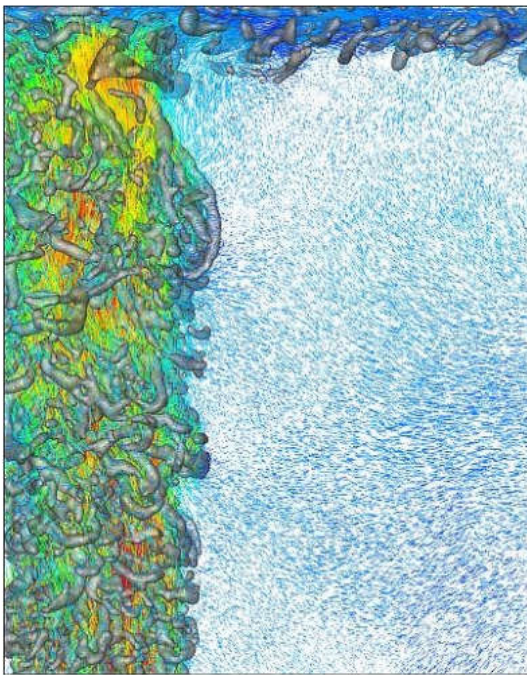# *3ʳᵈ Workshop and 1ˢᵗ Challenge on Data Assimilation & CFD Processing for PIV and Lagrangian Particle Tracking*

Agenda

Online workshop on Thursday-Friday, November 19-20, 2020

HOMER

HORIZON 2020

DLR · ONERA THE FRENCH AEROSPACE LAB · TUDelft

Final Program

Time slot	First author	Communication title
Thursday, Nov 19th		
8:45-9:00	Organizers	Welcome and introduction
9:00-9:25	Manovski, P.	Velocity and pressure measurements of a turbulent boundary Layer at 80 kHz using 2D PIV
9:25-9:50	Schanz, D.	Shake-The-Box particle tracking with variable time-steps in flows with high velocity range (VT-STB)
9:50-10:15	Giannopoulos, A.	A dense PIV system: a solution for rapid data assimilation
10:15-10:30		Break
10:30-10:55	Cortina-Fernandez, J.	Data-enhanced particle tracking velocimetry
10:55-11:20	Yang, Y.	Kernelized LPT and Lagrangian PIV
11:20-11:55	Rahimi Khojasteh, A.	Lagrangian Coherent Track Initialisation
11:55-13:30		Lunch break
13:30-13:55	Kim, D.	AI-based data assimilation: sound level spectra from time-resolved 3D LPT
13:55-14:20	He, C.	Sequential data assimilation for unsteady flow pressure determination using continuous adjoint formulation
14:20-14:45	Zauner, M.	Nudging the Reynolds-Averaged Navier-Stokes equations with synthetic PTV-data of the square cylinder flow at Re=22 000
14:45-15:00		Break
15:00-15:25	Jeon, Y.J.	Eulerian time-marching in Vortex-In-Cell method by optimizing 4D boundary conditions
15:25-15:50	Scarano, F.	Velocity field reconstruction with time segment assimilation
15:50-16:20	Gesemann, S.	FlowFit3: Fast Data Assimilation for Recovering Instantaneous Details of Incompressible Flows based on scattered data
Time slot	**First author**	**Communication title**
Friday, Nov 20th		
9:00-9:25	Suzuki, T.	Development toward PSP-driven CFD simulation
9:25-9:50	Saredi, E.	State observer data assimilation for RANS with time-averaged 3D-PIV data
9:50-10:15	Mons, V.	Enhanced mean flow reconstruction from punctual measurements through optimal sensor placement
10:15-10:30		Break
1st Challenge on LPT and DA		**Communication title**
10:30-11:00	Leclaire, B.	Challenge datasets generation: physical situation, numerical simulation and synthetic generation
11:00-12:00	Sciacchitano, A.	LPT Challenge results
12:00-13:30		Lunch break
13:30-14:15	Sciacchitano, A.	DA Challenge results
14:15-15:00	Organizers + participants	Conclusions, discussions and way forward