

## HPC Methods for Engineering Applications 19-21 June 2017 Milan - Italy

Topics of the Day	Day	Hours	Presenter	Title	Institution Type	Institution Name	TOPIC
PRE-PROCESSING: CAD import, CAD cleaning, meshing, CFD modelling	19 morning	10.00	--	Registration	--	CINECA	--
		10.30	C. Arlandini	Engineering Applications and HPC: a marriage of convenience	Academy	CINECA	Workshop Introduction
		11.00	F. Russo	Cad cleaning morphing and meshing with Altair tools	Industry	Altair	CAD Management/Meshing
		11.30	M. Di Nonno	The Influence Of Mesh Characteristics On Openfoam Simulations Of The Drivaer Model	Industry	BETA CAE Italy	CAD Management/Meshing
		12.00	M. Fontana	Automate CAD management and meshing with Pointwise	Industry	Porto Ricerca	CAD Management/Meshing
	19 afternoon	14.00	A. Montorfano	Mesh generation for HPC problems: the potential of snappyHexMesh	Academy	Politecnico di Milano	Meshing
		14.30	F. Piscaglia	Development of algorithms in an open-source CFD platform: examples of validation and application to industrial problems	Academy	Politecnico di Milano	CFD
		15.00	M. Pischiutta	CFD simulations form motorcycle helmet design: the benefits of HPC	Industry	Nolan	Meshing, CFD
		15.30	R. Rossi	Surfboards design using Computational Fluid Dynamics	Industry	RED Fluid Dynamics	CFD
	COMPUTING: CFD modelling, MultiPhysics solvers, Optimization	20 morning	10.30	A. Veneziani	Potential, perspectives and challenges of HPC for Clinical Trials and Surgical Planning: The Emory experience	Academy	Emory University/IUSS Pavia
11.00			C. Chiastra	Computer simulations of bench testing for the investigation of coronary bifurcation stenting	Academy	Politecnico Di Milano	CFD
11.30			V. Covello	Numerical simulation of human nasal cavity flow with particles	Academy	Politecnico di Milano	CFD
12.00			J. Guerrero	Agile simulations in the era of cloud computing	Industry	Wolf Dynamics	CFD and Optimization
20 afternoon		14.00	M. Sperati	AcuSolve CFD for HPC applications	Industry	Altair	MultiPhysics
		14.30	D. Panfiglio	HPC resources in COMSOL® from Simulations to Apps	Industry	Comsol	MultiPhysics
		15.00	A. Palmas	Cloud-Based CFD simulations for Clean Rooms in the Pharma Industry	Industry	Conself	MultiPhysics
		15.30	I. Spisso	HPC Cineca Infrastructure: state of the art, towards the exascale and OpenFOAM perspective	Academy	CINECA	HPC and CFD
POST-RPOCESSING AND OPTIMIZATION: Optimization, Data Visualization, Data processing	21 morning	10.30	H. Telib	Mimicking engineering "How-To" through HPC in the cloud: the SOUTH platform	Industry	Optimad	Optimization
		11.00	F.Salvadore	HPC and CAE: bridging the gap with CLOUD	Academy	CINECA	Cloud Computing, Data Processing
		11.30	D. Feo	Automatic workflow for SCR-DeNOx optimization	Academy	Politecnico di Milano	CFD and Optimizazion
		12.00	A. Pavlovic	Parallel computing for crash simulations: the case of a minicar	Academy	Università di Bologna	Crash, FEM
	21 afternoon	14.00	M. E. Biancolini	Fast Radial Basis Functions for Engineering Applications	Industry/Academy	Università di Tor Vergata/RBF Morph	Morphing and Optimization
		14.30	R. Ponzini	Pre and Post-processing on HPC platforms: tools and way of doing	Academy	CINECA	Visualization, Data Porcessing
		15.00	C. Arlandini	CINECA ongoing projects for CAE applications	Academy	CINECA	Closing Remarks