HPC methods for Computational Fluid Dynamics and Astrophysics - CINECA Roma, 3-5 December				Duration (h:mm)
Monday, December 3rd				
8:30	09:15	Registration		
9:15	10:00	Introduction to solvers and algorithms for CFD and Astrophysics M. Guarrasi, I. Spisso SuperComputing Applications and Innovation (SCAI) Department, CINECA	SERV1	00:45
10:00	10:45	HPC CINECA Infrastructure: State of the art and towards the exascale G. Amati SuperComputing Applications and Innovation (SCAI) Department, CINECA	SERV2	00:45
10:45	11:15	EU on-going projects: CoE, PRACE et. al. I. Spisso SuperComputing Applications and Innovation (SCAI) Department, CINECA	SERV3	00:30
11:15	11:30	Coffee break		00:15
11:30	13:00	Wall turbulence on supercomputers S. Pirozzoli, P. Orlandi Department of Mechanical and Aerospace Engineering University of Rome "La Sapienza"	CFD1	01:30
13:00	14:00	Lunch		01:00
14:00	16:00	HPC & Astrophysics: Numerical Methods for Hydro A. Mignone Department of Physics, University of Torino	ASTR1	02:00
16:00	16:30	Coffee break		00:30
16:30	17:15	Physics and high performance computation of turbulent flows with interfaces F. Zonta Institute of Fluid Mechanics and Heat Transfer, Vienna	CFD2	00:45
17:15	18:00	Discontinuous Galerkin Methods - HPC aspects and application to LES of turbomachinery flows Koen Hillewaert Cenaero, Gosselies, Belgium	CFD3	00:45
Tuesday, December 4th				
9:00	10.00	Intro on the PLUTO code A. Mignone Department of Physics, University of Torino	ASTRO2	1.00
10.00	11.15	R. Verzicco Dipartimento di Ingegneria Industriale, University of Rome "Tor Vergata" / Physics of Fluids Group, MESA+ Institute, and J. M. Burgers Centre for Fluid Dynamics, University of Twente Turbulent flows and cardiovascualar fluid-dynamics	CFD4	1.15
11:15	11.30	Coffee break		0.15
11.30	13.00	SPH Methods G. Lodato Department of Physics, University of Milan	ASTRO3	1.30
13.00	13.30	In-Situ Visualization with Paraview Catalyst S. Bna SuperComputing Applications and Innovation (SCAI) Department, CINECA	SERV4	0.30
13:30	14:30	Lunch		1:00
14:30	15:30	Turbulent drag reduction research in Aeronautics M. Quadrio Dipartimento di Scienze e Tecnologie Aerospaziali, Politecnico di Milano	CFD5	1:00
15:30	16.15	Tutorial: profiling your code with Intel @CINECA's HPC Infrastructure G. Rossi Application Engineer, CVCG DRD EMEA HPC, Intel Corporation Italia	SERV5	0.45
16:15	16.45	Coffee break		0.30
16:45	18.30	Tutorial on PLUTO A. Mignone Department of Physics, University of Torino	ASTRO4	1.45
Wednesday, December 5th				
9:00	10:15	Turbulence Dynamics in a Separation Bubble C. M. Casciola Department of Mechanical and Aerospace Engineering	CFD6	1:15
10:15	11:30	Intro on the Einstein Toolkit B. Giacomazzo Department of Physics, University of Trento INFN-TIFPA, Trento Institute for Fundamental Physics and Applications	ASTRO5	1:15
11:30	11:45	Coffee break		0:15
11:45	13.00	Turbulent cascades in Magneto-hydrodynamics: direct numerical simulations and large eddy simulations L. Biferale Department of Physics and INFN, University of Roma "Tor Vergata"	CFD7	1.15
13:00	14.00	Lunch		1.00
14:00	15:00	A. Colombo Development of a DG framework for Implicit LES and hybrid RANS/LES Department of Engineering and Applied Science, University of Bergamo	CFD8	1.00
15:00	16.00	Adjont-based data assimilation for compressible and reactive flows J. Sesterhenn Institut für Strömungsmechanik und Technische Akustik TU Berlin, Germany	CFD9	1.00
16.00	16.15	Coffee break		0.15
16:15	18:00	Tutorial on the Einstein Toolkit B. Giacomazzo Department of Physics, University of Trento INFN-TIFPA, Trento Institute for Fundamental Physics and Applications	ASTRO6	1:45