Tackling software exascale challenges: the Centres of Excellence in High Performance Computing perspective

Room: 9

	Session 1: Emerging Technologies in CoEs	
10:00-10:20	Exploring quantum computing in CoEs	Pratibha Raghupati Hegde (KTH)
10:20-10:40	Co-design, from a buzzword to a reality, an EPI sucess story	Marta García (BSC)
10:40-11:00	Vectorizing particle-on-cell algorithms - experiences from BIT1	Kallia Chronaki (FORTH)
11:00-11:30	*Coffee break*	
	Session 2: CoEs tackling state of the art research topics	
11:30-11:50	HPC for materials: achieved milestones and current frontiers	Roberta Farris (ICN2)
11:50-12:10	The HPCs vs Own Models issue! Much about nothing?	Ángela Rivera (Meteogrid)
12:10-12:30	In-Situ Techniques for the Efficient Coupling of Complex Plasma Turbulence Simulations: GENE and GENE-X	Yi Ju (MPCDF)
12:30-12:50	Carbon footprint of CMIP simulations	Sophie Valcke (CERFACS)
12:50-13:00	*Q&A and Discussion*	
13:00-14:00	*Buffet lunch*	
	Session 3: Applications in CoEs	
14:00-14:20	GALÆXI: Scale-resolving simulations of compressible turbulence on GPU-accelerated systems	Anna Schwarz (USTUT)
14:20-14:40	From Gysela to Gysela-X++: rebuilding a tokamak plasma simulation code from the ground up to prepare for the exascale	Kevin Obrejan (CEA)
14:40-15:00	gPLUTO: towards a new era of numerical simulations	Vittoria Berta (UNITO)
15:00-15:20	Preparing the CODA CFD Software for Extreme Scale	Michael Wagner (DLR)
15:20-15:30	*Q&A and Discussion*	
15:30-16:00	*Coffee break*	
16:00-17:30	*Demos* SPACE EoCoE MultiXScale	Yolanda Becerra (BSC) Carola Kruse (CERFACS) Lara Peeters (Gent University)