Meeting of HPC ACHs

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HPC ACHs | 15-16 November 2023

BSC-CIEMAT introduction

CIEMAT-BSC: 3 coordinated groups

Operations:: David Vicente, Gaurav Saxena

Best Practices for Performance and Programmability:: Marta García, Joan Vinyals

CASE-FUSION:: Mervi Mantsinen, Alejandro Soba, Xavier Sáez, Federico Cipolletta, Carlos Romero, Augusto Maidana.

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Codes

Code	Group	Task to do	State	Next
KNOSOS	Op.	Improvement of MC solver	100%	-
SPICE2	Fusion	Parallel potential solver Parallel electric field	100%	Improve communication
STELLA	BPPP	General improvements	50%	New optimizations
JOREK	Op+Fusion	Matrix compression	60%	Impr. compression. Finish test
GENE-X	Op+Fusion	Reordering of data	60%	Finish test
SOLPS	OP	General improvement	30%	

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Codes

Code	Group	Task to do	State	Next
ERO2.0	BPPP+Fusion	GPU porting General optimizations	50%	GPU porting.
BIT1	BPPP+Fusion	General measures GPU porting	30%	GPU porting
X-TORK	Op. + Fusion	GPU porting	0%	
BOUT++	Fusion	Domain division	0%	
SPEC	Op.+BPPP+Fusion	Performance study	0%	

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- Participation in MARCONI Ticket Committee (XS-AS)

- Participation in HPC Operation meetings (XS-AS)

- Jorek developers and users annual meeting (FC)

- Presentation of our work in EFTC23, Fusion HPC workshop 2022 and 2023, PASC2023.

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General points to add to the discussion at the afternoon

- Recruitment: general Cvs to share. Maybe we can share the CVs of identify "good candidates". Possibilities to work remotely can be easily considered, nowadays.

- Share information between centers. Discussions over similar codes: Examples: Solvers, Libraries (PETSC-MUMPS, Etc), GPUs tips, Clusters information or tricks. (Possibly a common mail list)