



PROGRAMME
DE RECHERCHE
NUMÉRIQUE
POUR L'EXASCALE

Action transverse - GT IA

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Goals: link between HPC and AI

Transverse action to avoid specific focus from the PCs

Centralize AI usage in NumPEX

- Promote collaboration
- Identify necessary tools

Scientific Animation of AI in NumPEX

- Participate in AAP around AI
- Organize workshops,
- Identify impactful AI for sciences projects

Bring-in External expertise

- Identify missing expertise
- Promote mini-app/benchmarks

Organization

- *Regular meetings* -> follow the AI use in the workpackages
- *Internal/external experts interview* -> identify common work and missing expertise
- *Task force on roadmap/AAP* -> summarize our exchanges

Participants



Identified thematic

From various discussions with experts in and out of NumPEX

- Simulation guided with AI (PC1)
reduced models, PINN, ...
 - AI for smart I/O (PC3)
data compression, in-situ analysis
 - AI for exploring large simulation outputs
event detection and tracking, parameter inference
- Smart training of large models on
supercomputers
- AI for managing large simulations
resource allocations, runs, ...
- AI for managing large codebases
code translation, automatic testing, ...



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 NumPEX