

Wejdane Bouchioua:

International student researcher passionate about merging artificial intelligence and high-performance computing, with experience across Canada and Europe.
Technical expertise includes federated learning, edge computing, and energy-efficient distributed AI systems, with a focus on reproducible MLPerf benchmarking

Clément Jourd'heuil:

Analytical and methodical, with industry experience in parallel programming : MPI and OpenMP.
Skilled in algorithmics, cluster management, job scheduling, and high-performance computing (HPC), with a strong focus on efficiency and scalability.

Maxime Monteiro:

Calm, reliable, and composed under pressure, with experience gained through CTF competitions.
Specialized in system operations, RDMA, RoCE, and Open OnDemand deployment, with strong skills in stress testing, monitoring, and troubleshooting.

Antoine Duval:

Patient and attentive to others. Professional experience in visualization and processing of big data.
Enjoys writing reports, giving presentations and attending international HPC conferences..

Timothé Kruk:

Responsible, passionate, and curious. Has research experience and strong analytical skills in rendering applications. Has expertise in code optimization for HPCG.
Focus on GPU performance tuning and algorithmic profiling.

RESOURCE MANAGEMENT STRATEGY:

Our strategy draws inspiration from the architecture of the Roméo supercomputer, ranked Top 2 in the Green500 for its exceptional energy efficiency and performance. Building upon this model, we work with ARM and x86 virtual machines, allowing the team to train, test, and optimize setups across diverse architectures.

To meet the challenges of the Student Cluster Competition, Team SCC113 is organized into specialized subgroups, each focusing on the optimization of specific applications or exercises. A central coordinator oversees task distribution, monitors progress, and ensures effective communication between subgroups.

Roles are assigned according to each member's technical background, experience, and strengths, maximizing efficiency and knowledge sharing. This adaptive structure allows subgroups to reorganize and exchange members as workloads and complexities evolve. Through continuous synchronization and regular check-ins, the team maintains a high level of collaboration, ensuring flexibility, precision, and performance throughout the competition.



**William
Martinez**



**Maxime
Monteiro**



**Timothé
Kruk**



**Clément
Jourd'heuil**



**Antoine
Duval**

TEAM PREPARATION AND STRATEGY

We are six complementary and motivated students from the CHPS Master's program at the University of Reims Champagne-Ardenne (URCA), France. Selected from a group of nine, we will enter our second year during the competition.

Our preparation is built on:

- Cluster setup & system administration.
- GPU optimization and AI workloads.
- Scientific visualization and simulation.
- Performance monitoring & stress testing.
- Technical communication and teamwork.



**Arnaud
Renard**



Coming from a program where HPC is not taught at the undergraduate level, our involvement reflects strong initiative, adaptability, and collaboration. We benefit from hands-on access to the ROMEO supercomputing center, working with real-world tools and environments.