TER QDCS : High-performance task-based tiled matrix multiplication with StarPU runtime

- Prerequisites : HPC course, MPI course
- Maximum 20 students (no limit on QDCS, accepted by default)
- Work done in pairs (groups of 2)
- Evaluation : source code, oral defence, written report
- 10 + 1 weeks (4h) :
 - Introduction to StarPU
 - \geq 1D tiling of matrices
 - 2D tiling of matrices
 - GPU and CPU tasks
 - MPI tasks between nodes
 - 3D matrix multiplication implementations
 - Performance measurements
 - Optional extensions chosen freely

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