

MatrixProduct en MPI + OpenMP

Prog. **asynchrone et overlapped** : **VARIANTE** ex 2 avec le **kernel 1**

Circulation de $As[...]$ et calcul à partir de $AsBuf[...]$



```
#pragma omp parallel private(step)
{
  for (step = 0; step < NbStep; step++) {
    if (omp_get_thread_num() == 0)    // 1 thread:
      ... // MPI comm. : send As, recv AsBuf
    } else {                            // n-1 threads:
      // rmk: omp_get_thread_num() → thread Id.
      //      omp_get_num_threads() → current number of threads
      ligDebTh = .....; nbLigTh = ..... // Compute on As
      cblas_dgemm(..., nbLigTh, ..., &As[ligDebTh][0], ...);
    }
    ... // Resynchronize all threads if needed
    ... // Management of As and AsBuf arrays (As ↔ AsBuf)
  }
}
```