

Parallel Programming - Day 3

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The goal of the exercise is again computing π using the trapezoidal rule for integrals. This time however the calculation is done using mutliprocesses instead of multithreads. The underlying difference is process share no data and the only communication possible is through messages.

The code is structured in such a way that each process computes its own part of the integral and then each result is reduced in a new variable `global_result`. This variable is eventually sent from the last process to the first using the `MPI_Send()-MPI_Recv()` protocol.

Below there is a graph aimed to verify the (weak) scalability of the program. The number of intervals is set to $N = 2 \times 10^9$.

