P. Hadjidoukas

Set 8 – MPI II

Issued: May 17, 2023

Question 1: 2D Diffusion and MPI Asynchronous Communication

Extend the MPI implementation of the 2D diffusion equation, introduced in the previous exercise, to use non-blocking communication between the processes.

The parallel code can be found in `diffusion2d_mpi.c`.
Significant points: MPI asynchronous send/receive operations.

To minimize communication overhead we compute the interior of the local domain while waiting for the boundaries by using non-blocking asynchronous communication.