FDA125 Advanced Parallel Programming February 2007

Exercises for Topic VIII (MPI)

Questions on the finite–differences MPI program distributed in lecture 6:

Exercise VIII.1

Why is it important to use *different* tags (10, 20) in the exchange phase?

Exercise VIII.2

How could this program be improved in efficiency?

(*Hint:* try to overlap communication phases with local computation where possible.)

Exercise VIII.3

Try to construct a deadlock situation by reordering the `send` / `recv` operations.