Exercise 9
Parallelization
(30.01.2026)

Review

1. In the Fortran90 statement `WHERE` instructions are only executed for elements that result in `.TRUE.`

   ☐ `.TRUE.`

   ☐ `.FALSE.`

2. Variables in parallel sections in OpenMP are by default

   ☐ `SHARED`

   ☐ `PRIVATE`

   ☐ `SAVE`

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1. Task *Parallelization with OpenMP – Hello world!* (2 P)
Get more familiar with OpenMP: Write a program and (execute it on a multi-core computer) that contains a `!$OMP PARALLEL` section, in which the text "Hello world! I am thread number" followed by the number of the thread is printed out. How many threads are generated? What do you notice during the output?

2. Task *Parallelization with Coarray Fortran* (2 P)
Analogously to the previous task, write a program and (execute it on a multi-core computer) that ask for the user's name and then prints out "Hello *name*!" and the number of the image with help of the Corrays as shown in the lecture.