

Tasks

Task0:

- Introduce the **parallel loop** and **kernels** directives.
- Vary the number of workers (**num_workers**)for a fixed **vector_length(32)** from 2 to 32.

Task1

- Parallelilse loops and **compute** the max of vector elements using openacc directive.
- Collapse many loops into a single loop.
- Compare **parallel loop** with **kernels for the above two points**.

Task2

- Run without specifying the clause in a subroutine
- Introduce the correct the clause to offload a function/subroutine

Task3 (structured data)

- Run the code on the host to check the result.
- Offload arrays to GPU-device.
- Copy data back to the CPU-host.
- Introduce the correct directive to take into account the updated array.

Task4 (unstructured data)

- Offload data to the device using the same procedure as in Task3.
- Offload data using unstructured data

Task5 (atomic)

- Run the code in a serial form.
- Introduce parallel loop and data locality.
- Eliminate dependencies.

Task6: Final application: gprof, accelerating, nvprof, nsys