



## Challenge 1

Parallel Computing

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- ❑ Groups up to 3 people
  - Changing team for the 2<sup>nd</sup> challenge is ok
- ❑ One week of time
- ❑ **3 points for free** in the 1<sup>st</sup> part of the exam
  - Skip selected questions
  - Valid any time in the whole academic year
- ❑ (Optional) present your work in class
  - Not a requirement, but highly encouraged!
  - Lecture 31<sup>st</sup> October

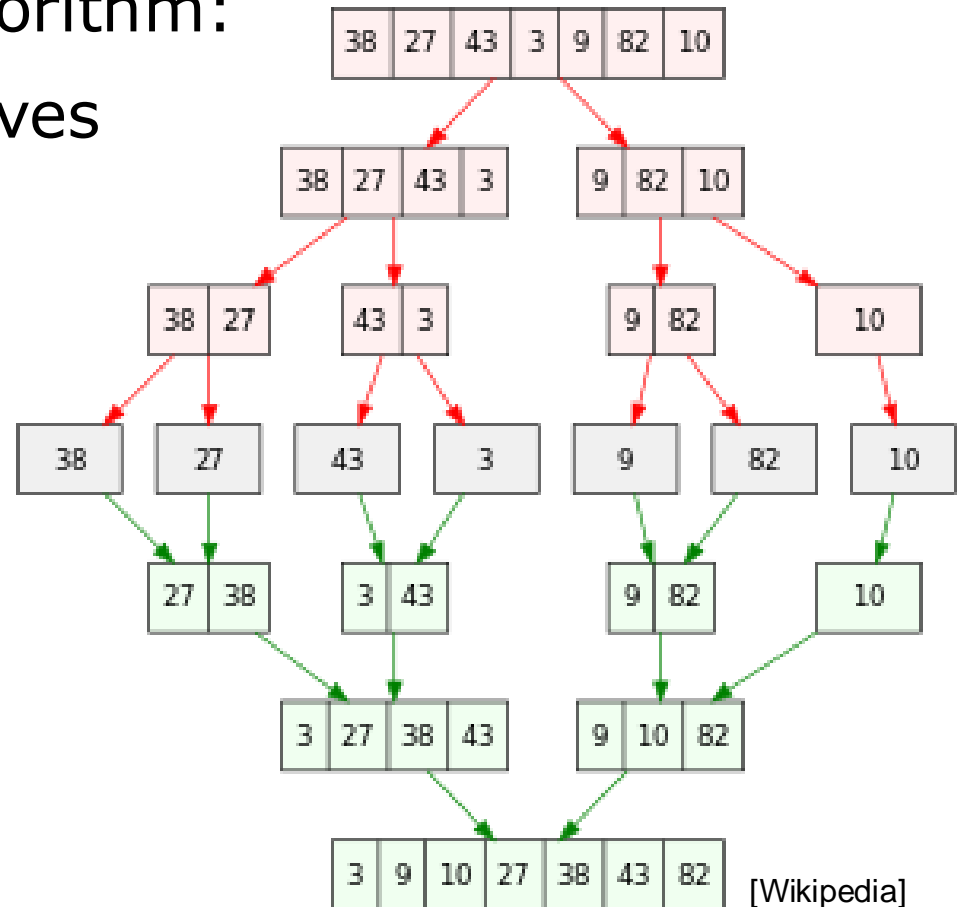
- ❑ Material to be delivered on Webeep:
  - Code (which **compiles and runs without errors**)
    - Use comments
    - 24h grace period for configuration errors
  - Short PDF report (**max 2 pages**)
    - Experimental setup
    - Performance measurements
    - Explanation of design choices
    - No screenshots of the code!
- ❑ Deadline: **24<sup>th</sup> October, midnight**

## ❑ Divide and Conquer algorithm:

- Divide array into halves
- Call sort on both
- Merge

## ❑ Single .cpp file:

- Main program
- Utilities
- Sort
- Merge



## □ Goals:

- Follow the hints in the code
- Use tasks when required, add synchronization
- Create a parallel region with a single creator, multiple executors
- Add a cut-off mechanism
- Test different configurations

