

5th Exercise in HPC

Exercise 1 2P

Use your optimized code of the Mandelbrotproblem and parallelize it using openMP.

Exercise 2 2P

In the second exercise a serial programm to compute pi using the Trapezoidal rule was implemented.

$$\int_a^b f(x) \approx h \left(\frac{1}{2} f(a) + \frac{1}{2} f(b) + \sum_{i=1}^{n-1} f(a + ih) \right)$$
$$h = \frac{b - a}{n}$$

$$f(x) = \frac{1}{1 + x^2} \quad a = 0 \quad b = 1$$

Paralllize your code using openMP.