Università	Institute of
della	Computational
Svizzera	Science
italiana	ICS

## **High-Performance Computing Lab**

2020

Due date: 30.10.2020 (midnight)

Student: FULL NAME

Discussed with: FULL NAME

## Solution for Project 4

## HPC Lab 2020 — Submission Instructions (Please, notice that following instructions are mandatory: submissions that don't comply with, won't be considered)

- Assignments must be submitted to Icorsi (i.e. in electronic format).
- Provide both executable package and sources (e.g. C/C++ files, Matlab). If you are using libraries, please add them in the file. Sources must be organized in directories called:

 $Project\_number\_lastname\_firstname$ 

and the file must be called:

 $project\_number\_lastname\_firstname.zip\\project\_number\_lastname\_firstname.pdf$ 

- The TAs will grade your project by reviewing your project write-up, and looking at the implementation you attempted, and benchmarking your code's performance.
- You are allowed to discuss all questions with anyone you like; however: (i) your submission
  must list anyone you discussed problems with and (ii) you must write up your submission
  independently.

## 1. Task: Implementing the linear algebra functions and the stencil operators [40 Points]

2. Task: Adding OpenMP to the nonlinear PDE mini-app [60 Points]