



Università
della
Svizzera
italiana

Institute of
Computing
CI

Numerical Computing

2023

Student: FULL NAME

Discussed with: FULL NAME

Solution for Project 4

Due date: Wednesday, 6 December 2023, 11:59 PM

Numerical Computing 2023 — 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. General Questions [10 points]

1. What is the size of the matrix A ?
2. How many diagonal bands does A have?
3. What is the length of the vectorized blurred image b ?

2. Properties of A [10 points]

3. Conjugate Gradient [30 points]

4. Deblurring problem [35 points]