



# Distributed and Parallel Computing OpenMP Report

Pedro Rio  
*MSc Data Science and Engineering*  
*Instituto Superior Técnico*  
*97241*

Sebastião Maia Serqueira  
*MSc Data Science and Engineering*  
*Instituto Superior Técnico*  
*97108*

Eduardo Machado  
*MSc Data Science and Engineering*  
*Instituto Superior Técnico*  
*97133*

## 1 Instructions

You must eventually submit the sequential and both parallel versions of your program (please use the filenames indicated above), and a table with the times to run the parallel versions on input data that will be made available (for 1, 2, 4 and 8 parallel tasks).

You must also submit a short report about the results (2 pages) that discusses:

- the approach used for parallelization
- what decomposition was used
- what were the synchronization concerns and why
- how was load balancing addressed
- what are the performance results, and are they what you expected

Both the code and the report will be uploaded to the Fenix system in a zip file. Name these files as g<n>omp.zip and g<n>mpi.zip, where <n> is your group number.

## 2 Introduction

## 3 Program Overview

## 4 OpenMP Version

## 5 Optimisations

## 6 Evaluation

## 7 Conclusion

## References

- [1] Joseph Wright. *Quick floats in LATEX*. Morningstar2.
- [2] Till Tantau. *The TikZ and PGF Packages*. Universität zu Lübeck.