

## Class Project

Before you write up your class project proposal, please discuss it with the instructor. Your **project proposal** should be no more than two pages long, and should include the following information:

*Group Info:* List the names and email addresses of each member of your group. Groups should contain either two or three people. The default size is two; if you are three, please check with the instructor.

*Project Description:* Briefly describe goal of your project (i.e. what research question(s) are you trying to answer?) and what metrics will be used to evaluate its success.

*Logistics:* Please address each of the following issues regarding how you will carry out your project:

*Plan and Schedule:* How will you go about completing your project? Indicate how the work will be divided among your group members.

*Literature Search:* What papers and other background materials have you collected so far to help you in your study? Are you missing anything?

*Resources Needed:* What software will you need to conduct your study? Do you have a copy of this software already? (If not, how will you get it?) What hardware or machines will you need to run this software? Do you have all of the resources that you need to conduct this study?

**An example of Class Project:** Solve a differential equation (diffusion, wave, Laplace,...) in 2-D on a single computer. Parallelize this task either by data domain distribution among multiple processors (in the case of IVP) or by the parallel iterative solution of a sparse linear system (Jacobi or SOR). Use MPI. Describe the problem, visualize and discuss the results. Analyse the speedup.

Before starting the project your selection should be confirmed by instructor.

After your project is finished, please, prepare the **project report**. It should be typically 10 pages long, written as a scientific paper and composed of:

1. Abstract,
2. Introduction (description of the problem),
3. Solution method (background and theory),
4. Obtained results (tables or graphs with detailed description),
5. Conclusions (how your results fit with your expectations, what should be done in future work etc.)
6. Appendix (source programme code and instructions for running your program),
7. References (used literature)

The final version of your project should be send by e-mail (in plain text, LaTeX or MSWord) to `roman.trobec@ijs.si` with the file name equal to the last name and labelled as project (i.e. `zadnik_project.doc`). Your project should be finished before your exam.