

Some Past Projects

Analyzing and Comparing Different Numerical Techniques for solving the Heat Equation: Eigenfunction Expansion Versus Finite Difference

Mathematical Modeling of Arterial Blood Flow

ECG Analysis

Computer Modeling of Groundwater Contaminant Transport

Projects

- first part: presentation, I expect a presentation with powerpoint, keynote, or PDF for about 10 minutes, the presentation includes: introduction, model/problem, method of analysis/approach, results, conclusions.
- Written report
- If you work in a group, I need an independent certification what you have contributed to the group project sent to me by direct email (not canvas).

Format of Project Report

- Single-spaced, typed report. A report generated using the publishing is not enough.
- Problem description (20 points)
 - Project goal
 - Objects of project tasks
- Implementation (40 points)
 - How do you answer each question of the project?
 - You need you include your code as an appendix, and your code should be well documented.
- Results and analysis (30 points)
 - How do you use your code to answer the project questions?
- Conclusions (10 points)
 - What have you learned or concluded from this study?