Numerical Methods in Physics 2024

General Schedule

- Duration: The course runs over four weeks: 29th July - 23rd August 2022.
- Lectures are Monday, Wednesday and Friday at 10:15-12:00.
- Excersize sessions are 10:15-12:00 Tuesday and Thursday and 13:15-15:00 Monday-Friday.

Week 1 - Numerical Differentiation and IVP

- To read: Chapter 2 and Section 3.1.
- Exercizes: 1.1-1.5 and 2.1-2.3 and 3.1-3.4
- Assignment to hand in: 2.1, 2.3, 3.1, **3.3***
  Deadline 23:59 on Monday 5th August

Week 2 - BVP and Partial Differential Equations

- To read: Chapter 3.2 and Chapter 4.
- Exercizes: 3.4-3.10 and 4.1-4.5
- Assignment to hand in: 3.6, 4.1, **4.3***
  Deadline 23:59 on Monday 12th August

Week 3 - Stochastic Simulations

- To read: Chapter 5.
- Exercizes: 5.1-5.6
- Assignment to hand in: 5.2, 5.5 **5.3***
  Deadline 23:59 on Monday 19th August

Week 4

This is project week. Before Monday in Week 4 you should decide on a project that you would like to work on. Groups with up to 3 participants are encouraged. The project is presented on the last Friday of the course (i.e. 23rd of August) as a 5 minute small presentation (You can also hand in a report if you prefer). We strongly recommend that you find a project that you find fun and challenging - and not a project that you find easy. We would like to help you develop your skills and we are very generous in giving points for the good effort.