

World of Particles

Lectures: room 212, Tuesday, 17⁰⁰ to 18³⁰ — assuming 2 hours each week, 15 weeks:

02/07 Overview, Introduction; distribution of seminar talks

02/14 Historical Particles

02/21 Historical Particles

02/28 Symmetries I

03/06 Special Relativity

03/13 Special Relativity

03/20 Special Relativity

03/27 Symmetries II

04/04 Particles of the Standard Model

04/18 Particles of the Standard Model

04/25 Particles of the Standard Model

05/02 Taxonomie of Particles

05/09 Big Bang

05/16 Repetition of Homework

05/23 Exam

Attendance required;

Homework suggested; will count towards the grade; less credit for late homework;

Grading: 100 points = 100%,

30 attendance

20 seminar presentation

30 homework

30 final exam — **no makeups**: written and oral; 50% required to pass the course.

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room 509

webpage: <http://web.vu.lt/ff/t.gajdosik/wop/>

Books are available

Seminar presentation

The idea of the presentation is to involve the students into the discussion about particle physics and related areas.

The student chooses a subject for the presentation and clarifies with me, if the subject is suitable or not. If it is suitable the student will get a time during the lecture to present the subject to the fellow students. The presentation can be given in English or in Lithuanian. The presentation should be rather short, i.e. about 5 minutes, and it has to be presented using the computer.

- The presentation has to be prepared in a computer readable format:
 - **.pdf** is recommended, as the presentation will look the same, independent of the computer.
 - a powerpoint presentation *might* work;
- The presentation should be given orally. It is recommended, that the student does not just read a text, but explains the subjects freely in his own words.
- The student should be able to answer questions from his fellow students. That does not mean, that he has to have all the answers.

The presentation helps also practicing the necessary presentation of the bachelors thesis at the end of the students bachelors studies.

Homework

Without calculating some problems any lecture in theoretical physics remains a fairy tale. In that sense the homework is required to profit from this lecture. The solving of problems helps to understand, whether the student has understood the material or not. At the exam it is too late to recognise, that one has not learned the required material.

The students are invited to come before the homework is due to discuss the problems and ask. I will gladly help them to understand the problem and guide them to the solution. The best way to arrange for a meeting is to write an email to arrange a time, as I can not guarantee that I will have always immediately time for the questions or that I will be always in my room (509).

I do not plan to give points for homework that is brought much later than its due date. It will nevertheless help to do the homework, even if it is late, as the exam will have questions and problems to solve similar to the home, too.

Exam

The exam will be a written test, that I want to discuss afterwards with the student.