

Information: Exam TP3

12-PHY-BIPTP3: 13.02. 10:00-13:00 KIHS

Topics: analytical mechanics, special relativity, electrodynamics

Aids allowed: scientific calculator (not really needed, though), pen [paper will be provided]

Preparation

1) study content of lecture

2) prepare summary of discussed content. While formula sheets are not allowed for the exam, it is suggested to collect the most important principles and formulas.

3) reread exercises, also from literature: The books from W. Nolting (TP 2, 3, 4) contain a number of exercises and also provide detailed solutions.

List of suggested exercises to reread and possibly train:

W. Nolting Theoretical Physics 2: Analytical Mechanics

Suggested exercises:

1.2.4-1.2.16, 1.2.27

1.3.1-1.3.5

1.4.1-1.4.3

2.4.1-2.4.5

2.5.1-2.5.9

3.7.1-3.7.2

TP 4 (Special theory of relativity)

Suggested exercises

1.6.1-1.6.10

2.5.1-2.5.4, 2.5.7-2.5.9, 2.5.11-2.5.13

W. Nolting Theoretical Physics 3: Electrodynamics

Suggested exercises

4.3.1-4.3.4

some more:

4.3.8, 4.3.14

4.5.1, 4.5.2

Note that the exercises might have calculation tasks that are beyond what is expected in the exam; also you might need to look up some formulas in the corresponding book which does not mean that you have to memorize these formulas for the exam.