

Summer Semester 2014 Introduction to Computational Physics (UKWR2)

Lecturers: Rainer Spurzem, Rüdiger Pakmor

Location Wed 9:15-10:45, Fri 11:15-12:00: INF 308, KIP, Hörsaal 2

The Lecture will be offered in **English Language** . There will be one tutorial in German and one in English

Lecture Time Plan

Wed 9.15	Fri 11.15	Spurzem	Pakmor	Chapter-Number: Topic
16.4	–	x		Introduction, 1-3: Practical Exercises/Mathematica
23.4	25.4.	x		4: Ord. Diff. Eqs. I: Two-Body Problem, Elementary Euler
30.4.	2.5.	x		6: Ord. Diff. Eqs. II: Runge-Kutta (2,4,higher) and more
7.5.	9.5.	x		6: Ord. Diff. Eqs. III: Advanced
14.5	16.5.	x		6. Ord. Diff. Eqs. IV: Lorenz-Attractor, Nonl. Dynamics
21.5	23.5.	x		6. Ord. Diff. Eqs. V: Lorenz-Attractor, Nonl. Dynamics
28.5	30.5.		x	5. Linear Algebra I / Matrices / Eigenvalues
4.6	6.6.		x	5. Linear Algebra II / Householder / QR-QM, ...
11.6	13.6.		V	5. Linear Algebra III
18.6	20.6.		x	8,9: Random Numbers, Monte Carlo methods
25.6	27.6.		x	9: Monte Carlo methods, Ising Model I
2.7.	4.7.		x	9: Monte Carlo methods, Ising Model II
9.7.	11.7.		x	Outlook
16.7.	18.7.			Preparation Week (no lecture)
23.7.	25.7.			Exam Week (no lecture)

V: “Vertretung” Wed 11.6., Fr 13.6. Pakmor

First Tutorial Sheet issued: Wed April 16, to be turned in Wed April 25

Begin of Tutorials: Fri April 25 / Mon April 28

Due to Whitsunday/-monday (Pfingsten) there will be no tutorials on Fri June 6 AND Mon June 9

Further Informations

Tutorials (Übungen)

Friday, 13:15 - 16:00, Im Neuenheimer Feld 227, CIP Pool KIP 1.401

Monday, 13:15 - 16:00, Im Neuenheimer Feld 227, CIP Pool KIP 1.401

The assignments (Übungsaufgaben) can be done by a single person or a group of two or three persons.

Assignments are prepared in the tutorials hours, with help of tutors and lecturers (sometimes).

Every week, usually Wednesday afternoon, a new assignment sheet (Übungsblatt) will be published in the webpage of the lecture. Deadline to hand in the assignments (electronically) is also Wednesday, after one week.

The results of the assignments will be discussed in the tutorials and if necessary also in the lecture.

Your tutors