

NucPhys - Experiments and instrumentation in large accelerators

Academic year 2017-2018

Quantum Mechanics	12 weeks x 5 h/week
Atomic and Molecular Physics	12 weeks x 5 h/week
Basic Experimental Nuclear Physics	20 h theory + 10 h lab (4 experiments x 2,5 h/exp)) 7 weeks theory x 3 h/week + 4 weeks lab 2.5 h/exp
Advanced Techniques in Experimental Nuclear Physics	(30 hours = 15 h theory + 15 h lab (6 experiments x 2,5 h/exp) 5 weeks theory x 3 h/week + 6 weeks lab 2.5 h/exp
Applied Nuclear Physics I	30 h intensive during the week January 22-26, 2018

*All the classes lectured in the first Semester will be in Seville.

Nuclear Structure: properties and models	(30 h intensive during the week February 5-9, 2018) in Salamanca
Applied Nuclear Physics II	30 h intensive during the week February 19-23, 2018) in Madrid
Many-Body Theories in Nuclear Physics	(30 h intensive during the week February 26-March 1, 2018) in Madrid
Nuclear Astrophysics	(30 h intensive during the week March 19-23, 2018) in Barcelona
Introduction to Nuclear Reactions	(30 h intensive during two weeks May 7-18, 2018) in Seville

In addition, the students without knowledge of Spanish will have Spanish language/culture classes during the morning (3 hours/day) of the first three weeks. The exact timetable will be communicated shortly.

TIMETABLE FIRST SEMESTER:

All lectures will be held at Facultat de Física - classroom 9.

Same timetable will be lectured the subject ATENP during 5 weeks. The timetable for the first semester is the following (Wednesday is booked for laboratory classes of BENP and ATENP).

Lectures	Monday	Tuesday	Wednesday	Thursday	Friday
16,00 – 17,00	A &M	A &M	BENP/ATENP	A &M	A &M
17,00 – 18,00	QM	A &M	BENP/ATENP Laboratory	QM	BENP/ATENP
18,00 – 18,30	break	break		break	break
18,30 – 19,30	QM	QM		QM	BENP/ATENP

QM = Advanced Quantum Mechanics

A&M = Atomic and Molecular Physics

BENP = Basic Experimental Nuclear Physics

ATENP = Advanced Techniques in Experimental Nuclear Physics

API = Applied Nuclear Physics I

QM and A&M

Starting date: October 2, 2018 – Ending date: December 22, 2018

Exams period: January 8-20

BENP

Starting date: October 2, 2018 – Ending date: November 17, 2018

LAB: October 18 and 25, November 7 and 14

Exams period: January 8-20

ATENP

Starting date: November 20, 2018 – Ending date: December 22, 2018

LAB: November 22, 28 and 29, December 5, 12 and 19

Exams period: January 8-20

API

Teaching period: January 22-26, 2018

Exams period: April 2018

TIMETABLE SECOND SEMESTER:

NS = Nuclear Structure: properties and models

Teaching period: week February 5-9, 2018 in SALAMANCA

Exams period: April 2018

APII = Applied Nuclear Physics II

Teaching period: week February 19-23, 2018 in MADRID

Exams period: April 2018

MBT = Many-Body theories in Nuclear Physics

Teaching period: week February 26-March 1, 2018 in MADRID

Exams period: June 2018

NA = Nuclear Astrophysics

Teaching period: week March 19-23, 2018 in BARCELONA

Exams period: June 2018

NR = Nuclear Reactions

Teaching period: two weeks May 7-18, 2018 in SEVILLA

Exams period: June 2018

	Monday 7	Tuesday 8	Wednesday 9	Thursday 10	Friday 11
9:00-10:00		Classical Scattering	Classical Scattering	Semiclassical Scattering	
10:00-11:00	Introduction				
11:00-11:30					
11:30-12:30	Introduction	Data Analysis	Data Analysis	Data Analysis	
12:30-13:30					
13:30-14:00					

	Monday 14	Tuesday 15	Wednesday 16	Thursday 17	Friday 18
9:00-10:00	Quantum Scattering	Quantum Scattering	Transfer reactions	Fusion	
10:00-11:00					
11:00-11:30					
11:30-12:30	NVR	NVR	NVR	Exotic Nuclei	
12:30-13:30					
13:30-14:00					