



# **Annex SFB**

# Studienfachbeschreibung (subject description, SFB) for the subject Physics International as a Master's with 1 major with the degree "Master of Science" (120 ECTS credits)

**Responsible:** Faculty of Physics and Astronomy Examination regulations version: 2024 Abbreviations used: Course types:  $\mathbf{E} = \text{field trip}$ ,  $\mathbf{K} = \text{colloquium}$ ,  $\mathbf{O} = \text{conversatorium}$ ,  $\mathbf{P} = \text{placement/lab course}$ ,  $\mathbf{R} = \text{project}$ ,  $\mathbf{S} = \text{seminar}$ ,  $\mathbf{T} = \text{tutorial}$ ,  $\mathbf{\ddot{U}} = \text{exercise}$ ,  $\mathbf{V}$ = lecture Term: **SS** = summer semester, **WS** = winter semester Methods of grading: NUM = numerical grade, B/NB = (not) successfully completed Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), FSB = subject-specific provisions, SFB = list of modules Other: A =thesis, LV =course(s), PL =assessment(s), TN =participants, VL =prerequisite(s) Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not cre-Conventions for the modules in this SFB: ditable for bonus. Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the me-Information on thod of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the assessment procedures: customary manner. Should a module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below. Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with the general regulations governing the degree subject described in this module catalogue:

#### ASPO2015

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

### 06-Sep-2023 (2023-70)

### ??-???-2024 (2024-??)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.

Every module will be described using the following form:

Abbreviation	Module title										
	ECTS	Dura	ation	(in semesters)	Method of grading	Module level					
	Courses		To be spe	o be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y							
	Method of as	sessment									
	Only after su completion o		if applica	ble							
	Other prereq	uisites	if applica	ble							
	Participants and allocati- on of places		i- if applica	ble							
	Additional information		if applica	ble							
	Referred to ir	n LPO I	if applica	ble (examination	regulations for teaching-	degree programmes)					

Electives Field (60	ECTS credits)							
Subfield Physics (I	min. 55 ECTS credits)							
Advanced Laborate	ory Courses (min. 9 ECTS	credits)						
11-P-FM1-Int-201-	Advanced Laboratory C	ourse Master Part 1						
m01	ECTS 3 Duratio							
	Courses	P (3) Module taught in: English						
	Method of assessment	practical examination Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication) an experiment to be considered to have successfully completed this experiment. Students must successfully complete two ex- periments to be considered to have successfully completed this module. Detailed regulations are laid down in the respective module description. Language of assessment: English						
	other prerequisites	Preparation and safety briefing.						
11-P-FM2-Int-201-	Advanced Laboratory C							
m01	ECTS 3 Duratio							
	Courses	P (3) Module taught in: English						
	Method of assessment	practical examination Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication) an experiment to be considered to have successfully completed this experiment. Students must successfully complete two ex- periments to be considered to have successfully completed this module. Detailed regulations are laid down in the respective module description. Language of assessment: English						
	other prerequisites	Preparation and safety briefing.						
11-P-FM3-Int-201-	Advanced Laboratory C	ourse Master Part 3						
m01	ECTS 3 Duratio	n 1 semester Method of grading (not) successfully completed Modul level graduate						
	Courses	P (3) Module taught in: English						
	Method of assessment	practical examination Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication) an experiment to be considered to have successfully completed this experiment. Students must successfully complete two ex- periments to be considered to have successfully completed this module. Detailed regulations are laid down in the respective module description. Language of assessment: English						
	other prerequisites	Preparation and safety briefing.						

11-P-FM4-Int-201-	Advanced L	Advanced Laboratory Course Master Part 4										
m01	ECTS 3	Duratio	n	1 semester	Method of grading	(not) successfully completed	Modul level	graduate				
	Courses		P (3)									
				Module taught in: English								
	Method of a	assessment	practical examination									
			Students must successfully prepare, perform, document (lab notebook) and evaluate (in the form of a scientific publication) an experiment to be considered to have successfully completed this experiment. Students must successfully complete two ex-									
			perim	ents to be consider				is are laid down in the respective				
			module description. Language of assessment: English									
	other prere	quicitoc		ration and safety br								
Advanced Seminar	· · ·	•	Ггера	liation and safety bi	iening.							
11-OSP-A-Int-201-	· ·		ica A									
mo1		Seminar Phys		1 comoctor	Mathad of grading	numerical grade	Modul level	graduata				
	ECTS 5 Courses	Duratio	S (2)	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		Module taught in: English									
	Method of a	assessment		ith discussion (30 t								
			•	lage of assessment:	English		_					
11-OSP-B-Int-201- mo1		Seminar Phys						Laws durate				
	ECTS 5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		S (2) Module taught in: German or English									
	Method of a	assessment	talk with discussion (30 to 45 minutes)									
			Language of assessment: German and/or English									
Experimental Phys												
11-BSV-Int-201- mo1		Signal Proce		, <u>,</u>		· · ·	[					
mor	ECTS 6	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			+ Ü (2) Ile taught in: English	1							
	Method of a	assessment				tes) or b) oral examination of (	ne candidate (	each (approx. 30 minutes) or c)				
	Method of t	JJCJJment						ort (approx. 8 to 10 pages) or e)				
				ntation/talk (approx								
								sessment may instead take the ethod of assessment is changed,				
						four weeks prior to the origina						
			Asses	ssment offered: In th	ie semester in which t	he course is offered and in the						
			Langu	lage of assessment:	English							

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11-OHL-Int-201-	Organic Semiconductors											
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	5			V (3) + R (1) Module taught in: English							
	Method	l of ass	essment	<ul> <li>a) written examination (approx. 90 to 120 minutes) or</li> <li>b) oral examination of one candidate each (approx. 30 minutes) or</li> <li>c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or</li> <li>d) project report (approx. 8 to 10 pages) or</li> <li>e) presentation/talk (approx. 30 minutes).</li> <li>If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest.</li> <li>Assessment offered: In the semester in which the course is offered and in the subsequent semester</li> <li>Language of assessment: English</li> </ul>								
11-PMM-Int-201-	Physics	s of Adv	anced Ma	aterial	s							
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S	-		V (3) + R (1) Module taught in: English							
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English								
11-SPI-Int-201-m01	Spintro	nics										
	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) + R (1) Module taught in: English								
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English								

11-FK2-Int-201-m01	Solid S	State Ph	ysics 2								
	ECTS	8	Duratio	n	1 semester	Method of gradi	ng numerical grade	1	Modul level	graduate	
	Course	25			V (4) + R (2) Module taught in: English						
	Metho	d of ass	essment	oral e prese If a w form the le Asses Lang	any written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) oresentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the orm of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, he lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester anguage of assessment: English						
	other	orerequi	sites	Appro	oval from examin	ation committee requ	uired.				
11-FKS-Int-201-m01			ectrocopy	/						<u></u>	
	ECTS	6	Duratio		1 semester	Method of gradi	ng numerical grade		Modul level	graduate	
	Courses				+ R (1) Jle taught in: Eng	lish					
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English							
11-MAG-Int-201-	Magne	etism									
m01	ECTS	6	Duratio		1 semester	Method of gradi	ng numerical grade	I	Modul level	graduate	
	Courses			V (3) + R (1) Module taught in: English							
	Method of assessment			oral e prese If a w form the le Asses	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English						

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11-HNS-Int-201-	Optical Properties of Semiconductor Nanostructures											
m01	ECTS 6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			+ R (1) ıle taught in: Englis	h							
	Method of	assessment	oral e prese If a w form the le Asse	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English								
11-HPH-Int-201-	Semicond	uctor Physics	i									
m01	ECTS 6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			(3) + R (1) Iodule taught in: English								
		assessment	oral e prese If a w form the le Asse	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English								
11-QTR-Int-201-	Quantum	Fransport										
m01	ECTS 6	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (3) + R (1) Module taught in: English									
	Method of	assessment	oral e prese If a w form the le Asses	examination in grou entation/talk (appro ritten examination of an oral examinat ecturer must inform	ips (groups of 2, appro bx. 30 minutes). was chosen as methor tion of one candidate of students about this b the semester in which	ox. 30 minutes per car d of assessment, this each or an oral examin y four weeks prior to t	ndidate) or d) project repo may be changed and ass					

11-QIC-Int-201-mo	1 Advanc	ed The	ory of Qua	ntum	Computing and (	Quantum Information						
	ECTS	6	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			V (3) + R (1) Module taught in: English							
	Methoo	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English							
11-NOP-Int-201-	Nano-O	<b>)</b> ptics										
m01	ECTS	6	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			+ R (1) ule taught in: Eng	lish						
	Method	1 01 855	sessment	oral e prese If a w form the le Asse	examination in gr entation/talk (app rritten examinatio of an oral examir ecturer must infor	oups (groups of 2, appro prox. 30 minutes). In was chosen as metho nation of one candidate of m students about this b n the semester in which	ox. 30 minutes per can d of assessment, this each or an oral exami y four weeks prior to	ndidate) or d) project rep may be changed and as				
11-PTS-Int-201-	Phenor	nenolo	gy and Th	eory o	of Superconductiv	rity						
m01	ECTS	6	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) + R (1) Module taught in: English								
	Methoo	d of ass	sessment	oral e prese If a w form the le Asse	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English							

08-PCM4-161-m01	Ultrafast spectroscopy and quantum-control											
	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul lev	el grad	uate			
	Course	Courses			S (2) + Ü (1)							
					le taught in: Germa							
	Methoo				a) written examination (approx. 90 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) talk (ap- prox. 30 minutes) Language of assessment: German and/or English							
	other p	rerequi	sites	Prior	completion of mod	ules o8-PCM1a and o8-PCM1b recommend	ded.					
11-CSFM-Int-201-	Advanc	ed Top	ics in Soli	d Stat	e Physics							
m01	ECTS	6	Duratio	n	1 semester	Method of grading numerical grade	Modul lev	el grad	uate			
	Course	S			+ R (1) Ile taught in: Englis	h						
				oral e prese If a w form the le Lang	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
	other p			Approval from examination committee required.								
11-ASM-Int-201-	Methods of Observational Astronomy											
m01	ECTS	6	Duratio	n	1 semester	Method of grading numerical grade	Modul lev	el grad	uate			
	Courses			V (3) + R (1) Module taught in: English								
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English								

11-TPE-Int-201-mon	Experin	Experimental Particle Physics										
	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			V (3) + R (1) Module taught in: English							
	Method	d of ass	essment	oral e senta If a wi form o the le Asses	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or pre- sentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English							
11-ASP-Int-201-	Introdu	uction to	Space P	hysics								
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			V (3) + R (1) Module taught in: English							
	Methoo	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is change the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English							
11-MAS-Int-201-	Multi-v	vavelen	gth Astro	nomy								
m01	ECTS	6	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) + R (1) Module taught in: English								
	Methoo	d of ass	essment	oral e prese If a wi form o the le	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							

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11-CSAM-Int-201-	Advanc	Advanced Topics in Astrophysics										
m01	ECTS	6	Duration	۱	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	S			+ R (1) ule taught in: Eng	lish						
	Method	l of ass	essment	oral oral oral oral oral oral oral of pressoned for the location of the locati	) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) ral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) resentation/talk (approx. 30 minutes). Ta written examination was chosen as method of assessment, this may be changed and assessment may instead take the prim of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, ne lecturer must inform students about this by four weeks prior to the original examination date at the latest.							
	other p	rerequi	sites	Appr	Approval from examination committee required.							
11-MRI-Int-201-	Advanc	ed Mag	gnetic Res	onand	e Imaging							
m01	ECTS	6	Duration	۱	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	S			+ R (1) ule taught in: Eng	lish						
	Method	l of ass	essment	oral oral oral oral oral oral oral of prese of the second	examination in gr entation/talk (app vritten examinatio of an oral examir ecturer must infor	oups (groups of 2, appro prox. 30 minutes). In was chosen as metho nation of one candidate m students about this b n the semester in which	ox. 30 minutes per ca d of assessment, thi each or an oral exam y four weeks prior to	andidate) or d) project re is may be changed and a:				
11-SSC-Int-201- m01	Surface Science											
	ECTS 6 Duratio			า	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	S		V (3) + R (1) Module taught in: English								
	Method	l of ass	essment	oral e prese If a w form the le Asse	examination in gr entation/talk (app vritten examinatio of an oral examir ecturer must infor	oups (groups of 2, appro prox. 30 minutes). In was chosen as metho nation of one candidate m students about this b n the semester in which	ox. 30 minutes per ca d of assessment, thi each or an oral exam y four weeks prior to	andidate) or d) project re is may be changed and a:				

11-BIC-Int-201-m01	Basic I	maging	Concepts							
	ECTS	6	Duratior	า	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Course	S		V (3) · Modu	+ R (1) le taught in: English	1				
	Methoo	d of ass	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English						
11-CAP-Int-201-		nporary	Astrophy	sics	-					
m01	ECTS	6	Duratior	ו	1 semester	Method of grading	numerical grade	Modul level	graduate	
11-AAI-Int-201-m01	Course	S		V (3) · Modu	+ R (1) le taught in: English	1				
				a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English						
	Advanc	ed Ast	ro Imaging	5						
	ECTS 6 Duration		า	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V (3) + R (1) Module taught in: English						
	Methoo	d of ass	essment	oral e prese If a w form o the le	xamination in group ntation/talk (approx ritten examination w of an oral examinati	bs (groups of 2, appro x. 30 minutes). vas chosen as metho on of one candidate o students about this b	ox. 30 minutes per cano d of assessment, this r each or an oral examin	didate) or d) project repo nay be changed and ass	ach (approx. 30 minutes) or c) ort (approx. 8 to 10 pages) or e) essment may instead take the ethod of assessment is changed, late at the latest.	

11-CTA-Int-201-	Advance	ed Com	puter Ton	nograp	ography							
m01	ECTS 6 Duration			า	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	i			V (3) + R (1) Module taught in: English							
	Method of assessment			oral ex preser If a wr form o the leo	) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) ral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) resentation/talk (approx. 30 minutes). Ta written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, he lecturer must inform students about this by four weeks prior to the original examination date at the latest. anguage of assessment: English							
11-EIM-Int-201-	Electron	and lo	on Micros	сору								
m01	ECTS	6	Duratior	1 I	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (3) + Modul	- R (1) le taught in: Englis	sh						
	Method			oral ex preser If a wr form o the leo Langu	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
11-SPT-Int-201-		-	e Technol									
m01	ECTS	6	Duratior		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	i		V (3) + Modul	- R (1) le taught in: Englis	sh						
	Method	of asse	essment	oral ex preser If a wr form o the leo	xamination in grou ntation/talk (appro itten examination of an oral examina	ups (groups of 2, appro ox. 30 minutes). was chosen as method tion of one candidate e students about this b	x. 30 minutes per can d of assessment, this each or an oral examin	didate) or d) project repo may be changed and ass	each (approx. 30 minutes) or c) ort (approx. 8 to 10 pages) or e) sessment may instead take the ethod of assessment is changed, date at the latest.			
11-FPA-Int-201-mo:	Visiting	Resea	rch									
	ECTS 10 Duratio			1		Method of grading	numerical grade	Modul level	graduate			
	Courses			R (o) Modul	le taught in: Englis	sh						
	Method	ofasse	essment		t report (10 to 20 ) age of assessmen							
	other prerequisites				Language of assessment: English Approval from examination committee required.							

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11-EXE5-Int-201-	Current To	pics in Experi	imental Physics								
m01	ECTS 5	Duratio	n 1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (2) + R (2) Module taught in: Eng	V (2) + R (2) Module taught in: English							
	Method of	fassessment	oral examination in g presentation/talk (ap If a written examination form of an oral exami	roups (groups of 2, approprox. 30 minutes). on was chosen as methonation of one candidate or matures about this b	ox. 30 minutes per cand d of assessment, this m each or an oral examina	lidate) or d) project repo nay be changed and ass ation in groups. If the m	each (approx. 30 minutes) or c) ort (approx. 8 to 10 pages) or e) sessment may instead take the ethod of assessment is changed, date at the latest.				
	other prer	equisites	Approval from examir	oproval from examination committee required.							
11-EXE6-Int-201-	Current To	pics in Exper	imental Physics	ental Physics							
m01	ECTS 6	Duratio	n 1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (3) + R (1) Module taught in: Eng	glish		· · · · ·					
		fassessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English								
	other prer	•	Approval from examination committee required.								
11-EXE7-Int-201- m01			mental Physics								
	ECTS 7 Courses	Duratio	1 semesterMethod of gradingnumerical gradeModul levelgraduateV (3) + R (1)Module taught in: EnglishVVVV								
			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English								
	other prer	equisites	Approval from examin	nation committee require	a.						

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11-EXE8-Int-201-	Current	t Topics	in Experi	imenta	l Physics							
m01	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			V (4) + R (2) Module taught in: English							
	Methoo	d of ass	essment	oral e prese If a w form the le	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
	other p				pproval from examination committee required.							
11-EXE6A-Int-201-			-		l Physics							
m01	ECTS	6	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses				+ R (1) Ile taught in: En	glish						
				oral e prese If a w form the le	examination in g entation/talk (ap ritten examinati of an oral exami	roups (groups of 2, appr pprox. 30 minutes). on was chosen as methon nation of one candidate prm students about this l	ox. 30 minutes per cand od of assessment, this m each or an oral examina	lidate) or d) project repond nay be changed and ass nation in groups. If the ma	ach (approx. 30 minutes) or c) ort (approx. 8 to 10 pages) or e) essment may instead take the ethod of assessment is changed, date at the latest.			
	other prerequisites		sites	Approval from examination committee required.								
11-EXP6-Int-201- m01		<u> </u>	in Physic									
		6	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V(3) + R(1)								
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English								
	other p	rerequi	sites	Appro	oval from exami	nation committee require	ed.					

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11-QM2-Int-201-	Quantum Mechanics II									
m01	ECTS 8 Duration			1 semes	ter	Method of grading numerical grade	Modul level	undergraduate		
	Course	es		V (4) + R (2)			•			
				Module taught in: English						
	Metho	d of ass	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English						
11-TQO-Int-221-	Theore	etical Q	uantum Op	otics						
m01	ECTS	8	Duration	1 semes	ter	Method of grading numerical grade	Modul level	graduate		
	Course	es		V (4) + R (2) Module taught	in: Engli	ish	l l	•		
	Method of assessment			written examination (approx. 90 to 120 minutes) or oral examination of one candidate each (approx. 30 minutes) or oral ex- amination in groups (groups of 2, approx. 30 minutes per candidate) or project report (approx. 8 to 10 pages) or presentati- on/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English						
11-RTT-Int-201-m01	Theory of Relativity									
	ECTS 6 Duratio			1 semes	ter	Method of grading numerical grade	Modul level	graduate		
	Courses		V (3) + R (1) Module taught in: English							
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						

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11-RMFT-Int-201-	Renormalizatio	Renormalization Group Methods in Field Theory											
mo1	ECTS 8	Duratio	1 semester	Method of grading	numerical grade	Modul level	graduate						
	Courses	-	V (4) + R (2) Module taught in: Eng	lish									
	Method of asse	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: Once a year as announced										
11-PKS-Int-201-	Physics of Com	plex Sys	tems										
m01	ECTS 6	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate						
	Courses		V (2) + R (2) Module taught in: Eng	lish		·							
	Method of asse		a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take th form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is chan the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester										
11-QIC-Int-201-mo:	Advanced Theory of Quantum Computing and Quantum Information												
	ECTS 6	Duration		Method of grading	numerical grade	Modul level	graduate						
	Courses		V (3) + R (1) Module taught in: English										
	Method of asse	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English										

11-TFK-Int-201-m01	Theore	tical So	lid State	Physi	cs						
	ECTS	8	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	S			+ R (2) ule taught in: Engli	sh					
				oral prese If a w form the le Lang	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) oresentation/talk (approx. 30 minutes). f a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester anguage of assessment: English						
11-TFK2-Int-201-	Theoretical Solid State Physics 2										
m01	ECTS	8	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	S			+ R (2) ule taught in: Englis	sh					
	Method	1 01 855	essment	oral prese If a w form the le Lang	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester						
11-TEFK-Int-201-	Topolo	gical Ef	fects in S	olid State Physics							
m01	ECTS	8	Duration	ı	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	S		V (4) + R (2) Module taught in: English							
	Method	l of ass	essment	oral prese If a w form the le Asse	examination in grou entation/talk (appr vritten examination of an oral examina ecturer must inform	ups (groups of 2, appro ox. 30 minutes). was chosen as methor tion of one candidate on students about this b the semester in which	ox. 30 minutes per car d of assessment, this each or an oral exami y four weeks prior to t	ndidate) or d) project repo may be changed and ass			

11-FFK-Int-201-m01	Field Th	neory in	Solid Sta	ate Ph	ysics								
	ECTS	8	Duration	า	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	S			+ R (2) ule taught in: Engl	ish							
	Methoo	l of ass	essment	oral prese If a w form the le Asse	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English								
11-AKTF-Int-201-		<u> </u>			l Solid State Phys								
m01	ECTS	6	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses				(3) + R (1) Nodule taught in: English								
	Method of assessment			oral prese If a w form the le Asse	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) o oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) of presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is cha the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English								
11-CMS-Int-201-	Compu	tationa	l Material	s Scie	ence (DFT)								
m01	ECTS	8	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	S		V (4) + R (2) Module taught in: English									
	Methoo	l of ass	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester									

11-KFT-Int-201-m01	Confor	mal Fiel	d Theory									
	ECTS	6	Duration	ı	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			+ R (1) lle taught in: English	1						
	Methoo	l of asso	essment	oral e prese If a w form the le Langu	) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) ral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) resentation/talk (approx. 30 minutes). Ta written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, ne lecturer must inform students about this by four weeks prior to the original examination date at the latest. anguage of assessment: English assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-KFT2-Int-201-	Confor	mal Fiel	d Theory	2								
m01	ECTS				1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			V (3) + R (1) Module taught in: English							
	Method of assessment			oral e prese If a w form the le Langu	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take t form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is char the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-GRTM-Int-201-	Group	<u> </u>										
m01	ECTS	6	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) + R (1) Module taught in: English								
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								
	other p	rerequis	sites	Appro	oval from examination	on committee require	d.					

11-CRP-Int-201- m01	Renormaliza	ation Group	and Critical Phenomen	a		,					
m01	ECTS 6	Duratio	n 1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (3) + R (1) Module taught in: Eng	lish							
	Method of a	ssessment	oral examination in gr presentation/talk (app If a written examination form of an oral examination the lecturer must infor Language of assessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is change the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-BWW-Int-201-	Bosonisatio	on and Intera	actions in One Dimensi	on							
m01	ECTS 6	Duratio	n 1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses	`	V (3) + R (1) Module taught in: Eng	(3) + R (1) Iodule taught in: English							
	Method of a	ssessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minute oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pag presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead to form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								
11-GGD-Int-201-	Introduction	n to Gauge/	Gravity Duality								
m01	ECTS 8	Duratio		Method of grading	numerical grade	Modul level	graduate				
	Courses		V (4) + R (2) Module taught in: Eng	lish							
	Method of a	ssessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-AKM-Int-201- m01	Cosmo	logy						,				
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			+ R (1) ule taught in: Eng	lish						
	Methoo	d of ass	sessment	oral prese If a w form the le Lang	) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) oresentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the orm of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, he lecturer must inform students about this by four weeks prior to the original examination date at the latest. anguage of assessment: English assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-AST-Int-201-	Theore	tical As	strophysic	S								
m01	ECTS	6	Duration	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			(2) + R (2) odule taught in: English							
	Method	of ass	sessment	oral prese If a w form the le Lang	examination in gr entation/talk (app vritten examinatio of an oral examin ecturer must infor uage of assessme	ndidate) or d) project rep may be changed and as						
11-EPP-Int-201-	Introdu	iction t	o Plasma	Physi	cs							
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			V (2) + R (2) Module taught in: English							
	Methoo	d of ass	sessment	oral prese If a w form the le Lang	examination in gr entation/talk (app vritten examinatio of an oral examin ecturer must infor uage of assessme	oups (groups of 2, appro prox. 30 minutes). In was chosen as methom nation of one candidate of m students about this b ent: English	ox. 30 minutes per ca d of assessment, this each or an oral exami y four weeks prior to	ndidate) or d) project rep may be changed and as				

11-APL-Int-201- n01	High-E	nergy A	strophysi	cs								
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			/ (3) + R (1) Module taught in: English							
	Methoo	1 of ass	essment	oral e prese If a w form the le Langu	) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) ral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) resentation/talk (approx. 30 minutes). a written examination was chosen as method of assessment, this may be changed and assessment may instead take the prim of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, ne lecturer must inform students about this by four weeks prior to the original examination date at the latest. anguage of assessment: English ssessment offered and in the subsequent semester							
11-NMA-Int-201-	Compu	tationa	l Astrophy	ysics								
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S	-		V (3) + R (1) Module taught in: English							
				oral e prese If a w form the le Langu	xamination in group ntation/talk (appro ritten examination v of an oral examinati cturer must inform uage of assessment	bs (groups of 2, appro x. 30 minutes). vas chosen as metho on of one candidate e students about this b : English	ox. 30 minutes per cano d of assessment, this r each or an oral examin y four weeks prior to th	didate) or d) project repo nay be changed and ass				
11-QFT1-Int-201-			Theory I									
m01	ECTS	8	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (4) + R (2) Module taught in: English								
			essment	oral e prese If a w form the le Langu Asses	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
	other p	rerequi	sites	Appro	oval from examination	on committee require	d.					

· _	Quantu	m Field	d Theory II									
m01	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			+ R (2) ule taught in: Engl	ish						
	Methoo	l of ass	sessment	oral o prese If a w form the lo Lang	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-TEP-Int-201-m01	Theore	tical El	ementary	Partic	le Physics							
	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			(4) + R (2) odule taught in: English							
	Method	l of ass	sessment	oral oral oral oral oral oral oral of pressoned of the second sec	examination in gro entation/talk (app vritten examinatio							
11-ATTP-Int-201-	Selecte	ed Topi	cs of Theo	retica	l Elementary Parti	icle Physics						
m01	ECTS	6	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (3) + R (1) Module taught in: English								
	Methoo	d of ass	sessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-BSM-Int-201- m01	Models	Beyon	d the Sta	ndard	Model of Elementar	y Particle Physics						
m01	ECTS	6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			+ R (1) Ile taught in: Englis	h						
	Methoo	d of ass	essment	oral e prese If a w form the le Lang	any written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) oresentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the orm of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, he lecturer must inform students about this by four weeks prior to the original examination date at the latest. anguage of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-STRG1-Int-201-	String	Theory	1									
mo1	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses				(4) + R (2) lodule taught in: English							
	Method	1 01 855	essment	oral e prese If a w form the le Lang	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead ta form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is of the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester							
11-STRG2-Int-201-	String	Theory	2									
m01	ECTS	6	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			V (3) + R (1) Module taught in: English							
	Methoo	d of ass	essment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester								

11-RAI-Int-211-mo1	Radio A	Radio Astronomical Interferometry												
	ECTS	6	Duratior	ו 1	semester	Method of grading	numerical grade	Modul level	graduate					
	Courses	S		V (3) + R Module	taught in: Englis	sh								
				oral exa presenta If a writt form of a the lectu Languag	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) of oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) of presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is cha the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester									
11-SLQ-Int-241-	Black H	oles												
m01	ECTS	6	Duratior		semester	Method of grading	numerical grade	Modul level	graduate					
	Courses			V (3) + R Module	taught in: Englis	sh								
				<ul> <li>a) written examination (approx. 90 to 120 minutes) or</li> <li>b) oral examination of one candidate each (approx. 30 minutes) or</li> <li>c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or</li> <li>d) project report (approx. 8 to 10 pages) or</li> <li>e) presentation/talk (approx. 30 minutes).</li> <li>If a written examination was chosen as method of assessment, this may be changed and assessment may inste</li> <li>form of an oral examination of one candidate each or an oral examination in groups. If the method of assessme</li> <li>the lecturer must inform students about this by four weeks prior to the original examination date at the latest.</li> <li>Language of assessment: English</li> <li>Assessment offered: In the semester in which the course is offered and in the following semester</li> </ul>										
11-TPSM-Int-211- mo1			s (Standa		•									
	ECTS Courses	8 s	Duratior	n 1 semester Method of grading numerical grade Modul level graduate V (4) + R (2) Module taught in: English										
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Assessment offered: In the semester in which the course is offered and in the subsequent semester Approval from examination committee required.										

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11-FPA-Int-201-m01	Visitin	g Resea	rch					,			
	ECTS	10	Duratior	l		Method of grading	numerical grade	Modul level	graduate		
	Course	S		R (o) Modu	R (o) Module taught in: English						
	Metho	d of asse	essment	project report (10 to 20 pages) Language of assessment: English							
	other p	rerequis	sites	Approval from examination committee required.							
11-EXT5-Int-201-		t Topics	of Theore	etical P	hysics						
m01	ECTS	5	Duratior	۱	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	!S		V (2) + Modu	- R (2) le taught in: English						
	Method of assessment			a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
		prerequis		Approval from examination committee required.							
11-EXT6-Int-201-		-	of Theore	etical Physics							
m01	ECTS	6	Duratior			Method of grading	numerical grade	Modul level	graduate		
	Course	!S		V (3) + Modu	- R (1) le taught in: English						
		d of asse		a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English Approval from examination committee required.							
	ouncip	rerequis	JICC J	, ibbio	vat nom examinatio	i commuee require	u.				

· ·	Curren	t Topic	s of Theor	etical	Physics							
m01	ECTS	7	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	es			+ R (1) ule taught in: Engl	ish						
	Metho	d of ass	sessment	oral pres If a v form the l	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
	other p	orerequ	isites	Аррі	roval from examina	tion committee require	d.					
11-EXT8-Int-201-	Curren	t Topic	s of Theor	etical	Physics							
m01	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	es			/ (4) + R (2) Module taught in: English							
			sessment	oral pres If a v form the l Lang	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
		orerequ		Approval from examination committee required.								
11-EXT6A-Int-201-		· ·	s of Theor		Physics							
m01	ECTS Course		Duratio	V (3)	1 semester     Method of grading     numerical grade     Modul level     graduate       V (3) + R (1)     Module taught in: English     Module taught in: English     Module taught in: English							
				oral pres If a v form the l Lang	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
	other p	orerequ	isites	Аррі	Approval from examination committee required.							

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11-EXP6A-Int-201-	Current Topi	cs in Physi	CS							
m01	ECTS 6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V (3) + R (1) Module taught in: English						
	Method of as	ssessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English							
	other prereq	uisites	Appro	oval from examination	on committee require	d.				
Subfield Non-Phys	ical Minors (o	-5 ECTS cre	dits)							
10-M-OML-222-	Optimization			rning						
m01	ECTS 10	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses		V (4) + Ü (2) Module taught in: German and/or English							
	Method of as	ssessment	a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English Assessment offered: Only when announced in the semester in which the courses are offered and in the subsequent semester creditable for bonus							
10-M-VAN-222-	Advanced Ar	alysis								
m01	ECTS 10	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses		V (4) + Ü (2)							
			b) ora c) ora Langu	ll examination of on l examination in gro	e candidate each (15	to 15 minutes per cand				
10-M=AAA-	Applied Ana	- 1 1		r	1					
Nin-152-m01	ECTS 10	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		Modu	+ Ü (2) Ile taught in: English						
	Method of as	ssessment	a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate) Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English creditable for bonus							

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10-M=ADG-	Differential Geometry										
Min-152-m01	ECTS	10	Duratio	n	1 semester	Method of grading r	umerical grade	Modul level	graduate		
	Courses				V (4) + Ü (2) Nodule taught in: English						
	Metho	d of ass	essment	minu Asse: Lang	tes) or c) oral exam	ination in groups (group the semester in which th	os of 2, 15 minutes pe	r candidate)	f one candidate each (approx. 20 emester		
10-M=AFT-	Comple	ex Anal	ysis								
Hin-152-m01	ECTS 10 Duratio			n	1 semester	Method of grading r	umerical grade	Modul level	graduate		
	Courses				+ Ü (2) Jle taught in: Englis	sh					
	Metho	d of ass	essment	minu Asse Lang	tes) or c) oral exam	ination in groups (group the semester in which th	os of 2, 15 minutes pe	r candidate)	f one candidate each (approx. 20 emester		
10-M=AL-	Lie The	Lie Theory									
THin-152-m01	ECTS 10 Duratio		n	1 semester	Method of grading r	umerical grade	Modul level	graduate			
	Course	Courses			V (4) + Ü (2) Module taught in: English						
	Metho	d of ass	essment	minu Asse Lang	tes) or c) oral exam	ination in groups (group the semester in which th	os of 2, 15 minutes pe	r candidate)	f one candidate each (approx. 20 emester		
10-M=ATO-	Topolo	gy									
Pin-152-m01	ECTS	10	Duratio	n	1 semester	Method of grading r	umerical grade	Modul level	graduate		
	Course	Courses			+ Ü (2) ıle taught in: Englis	sh		ľ			
	Metho	d of ass	essment	minu Asse Lang	tes) or c) oral exam	ination in groups (group the semester in which th	os of 2, 15 minutes pe	r candidate)	f one candidate each (approx. 20 emester		

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10-M=AZTHin-152-	Numbe	r Theory	/									
m01	ECTS	10	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S	-		V (4) + Ü (2) Module taught in: English							
			essment	minut Asses Langu credit	es) or c) oral exam sment offered: In t lage of assessmen able for bonus	ination in groups (grou the semester in which	utes, usually chosen) or ups of 2, 15 minutes per the course is offered an	<sup>r</sup> candidate)	one candidate each (approx. 20 mester			
10-M=VGD-	Groups	Groups and their Representations										
Sin-152-m01	ECTS	10	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S			+ Ü (2) le taught in: Englis	sh						
	Methoo	d of ass	essment	minut Asses Langu	es) or c) oral exam	ination in groups (grou the semester in which	utes, usually chosen) or ups of 2, 15 minutes per the course is offered an	<sup>r</sup> candidate)	one candidate each (approx. 20 emester			
10-M=VGE-	Geometrical Mechanics											
Min-152-m01	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (4) + Ü (2) Module taught in: English								
	Methoo	d of asso	essment	minut Asses Langu	es) or c) oral exam	ination in groups (grou the semester in which	utes, usually chosen) or ups of 2, 15 minutes per the course is offered an	candidate)	one candidate each (approx. 20 emester			
10-M=VN-	Numer	ic of Par	tial Differ	rential	Equations							
PEin-152-m01	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (4) + Ü (2) Module taught in: English								
	Method of assessment			a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate) Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English creditable for bonus								

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10-M=VDI-	Discrete Mathematics											
Min-152-m01	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			V (3) + Ü (1) Module taught in: English								
	Method of	assessment	minut Asses Langu	tes) or c) oral exam	ination in groups (grout the semester in which	tes, usually chosen) or ups of 2, approx. 10 min the course is offered an	utes per candidate)	one candidate each (approx. 15 emester				
10-M=VM-	Selected To	Selected Topics in Mathematical Physics										
PHin-152-m01	ECTS 10	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			V (4) + Ü (2) Module taught in: English								
	Method of a	assessment	minut Asses Langu	tes) or c) oral exam	ination in groups (grout the semester in which	utes, usually chosen) or ups of 2, 15 minutes per the course is offered an	<sup>r</sup> candidate)	f one candidate each (approx. 20 emester				
10-M=VPD-	Partial Differential Equations of Mathematical Physics											
Pin-152-m01	ECTS 10	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (4) + Ü (2) Module taught in: English									
	Method of a	assessment	minut Asses Langu	tes) or c) oral exam	ination in groups (gro the semester in which	utes, usually chosen) or ups of 2, 15 minutes per the course is offered an	<sup>r</sup> candidate)	f one candidate each (approx. 20 emester				
10-M=V-	Pseudo Rie	mannian an	d Riem	annian Geometry								
PRGin-152-m01	ECTS 10	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			+ Ü (2) ıle taught in: Englis	sh							
	Method of	assessment	minut Asses Langu	tes) or c) oral exam	iination in groups (grou the semester in which	utes, usually chosen) or ups of 2, 15 minutes per the course is offered an	<sup>r</sup> candidate)	f one candidate each (approx. 20 emester				

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10-l=DB-161-m01	Databa	ises									
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	Courses			+ Ü (2)			•			
	Methoo	Method of assessment			written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus						
	Additio	onal Info	ormation	Focus	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE, IS, HCI, GE.						
10-l=QC-221-m01	-	ım Com	municatio	ons							
	ECTS 5 Duratio				1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	S			+ V (2) ule taught in: Engli	sh					
	Method of assessment			written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: English creditable for bonus							
	Additic	onal Info	ormation	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR							
10-I-RAK-152-m01		ter Arch	nitecture								
	ECTS	5	Duratio	Y	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course			V (2) + Ü (2)							
	Methoo	1 of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus							
	Referre	ed to in l	_PO I		ll Nr. 3b I Nr. 1c: Rechnerar	chitektur					

10-I-APR-172-m01	Advanc	Advanced Programming									
	ECTS	5	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	S	_	V (2) +	r (2) + Ü (2)						
	Method	d of ass	essment			prox. 60 to 120 minute					
				If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination							
				of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date).							
				Langu	Language of assessment: German and/or English						
				credit	able for bonus						
10-l-BS-191-m01		ing Sys	1			1					
	ECTS	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses				V (2) + Ü (2) Module taught in: English						
	Method	d of ass	essment			prox. 60 to 120 minute		_			
					f announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi-						
				date).							
				Language of assessment: German and/or English							
				credit	able for bonus						
10-l=Kl1-212-m01			igence 1			- 1					
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course			V (2) +							
	Method	d of ass	essment	written examination (approx. 60 to 120 minutes).							
				If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi-							
				date).				s of z candidate.	approx. 13 minutes per candi		
					able for bonus						
					Language of assessment: German and/or English						
		_					programme Informatik (Comp	outer Science, 120	o ECTS credits): AT,SE,KI,HCI		
08-FU-SAM-161-			1			and Magnetic Partic					
m01		5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course			V (2) +	.,						
	Method	d of ass	essment					andidate each (a	pprox. 20 minutes) or c) oral ex-		
						ce a year, summer ser	ninutes per candidate) nester				
						t: German and/or Eng					
					ditable for bonus						

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08-FU-EEW-222-	Electrochemi	Electrochemical Energy Storage and Conversion									
m01	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses			+ S (2) Ile taught in: Germa	n or English						
	Method of as	sessment	b) tal Langi	a) written examination (approx. 90 minutes) or oral examination of one candidate each (approx. 30 minutes) and b) talk (approx. 30 minutes); (weighted 65:35) Language of assessment: German and/or English Assessment offered: Once a year, summer semester							
08-FU-MW-222-	Structure-Properties Correlations of Light Materials - Experiments and Numerical Simulations										
m01	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	·		V (2) + S (2) Module taught in: German or English							
	Method of as	sessment	b) tal Langi	a) written examination (approx. 90 minutes) or oral examination of one candidate each (approx. 30 minutes) and b) talk (approx. 30 minutes); (weighted 60:40) Language of assessment: German and/or English Assessment offered: Once a year, summer semester							
11-EXNP6-Int-201-	201- Nonphysical Minor Subject										
m01	ECTS 6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V (3) + R (1) Module taught in: English								
	Method of as	sessment	a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: English								
	other prerequ	uisites	Appro	Approval from examination committee required.							
Master Project Mod	dules (60 ECTS	credits)									
11-FS-P-Int-201-	Professional	Specializa	tion Pl	nysics International							
m01	ECTS 15	Duratio	n	1 semester	Method of grading	(not) successfully completed	Modul level	graduate			
	Courses		S (4) Modu	ıle taught in: Englisł	1						
	Method of as	sessment		vith discussion (30 t uage of assessment							

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11-MP-P-Int-201-	Scientific Methods and Project Management Physics International										
m01	ECTS	TS 15 Duration		l	1 semester	Method of grading	(not) successfully completed	Modul level	graduate		
			R (4) Module taught in: English								
	Method of assessment			talk with discussion (30 to 45 minutes) Language of assessment: English							
11-MA-P-Int-201-	Master Thesis Physics International										
m01	ECTS 30 Duration			ı	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses						- <del>-</del>				
	Method of assessment			Master's thesis (750 to 900 hours total) Language of assessment: English							
	Additional Information			Time to complete: 6 months							