Academic degree	Module code	Module type
Bachelor of Science	12-PHY-BIPCS	Elective
Module Title	Introduction to Computational Software	
Language	English	
Duration	2. Semester	
Responsible	Institute for experimental physics I, II and institute for theoretical physics.	
Duration	1 Semester	
Cycle	Every summer semester.	
Tuition forms	 Lecture "Introduction to computational software" (2 SWS) = 30 h Attendance Exercise "Introduction to computational software" (2 SWS) = 30 h Attendance Self-study = 90 h 	
Workload	5 LP = 150 h	
Applicability	B. Sc. IPSP	
Objectives	Students: • Learn the use of computational software packages. • Learn to solve computational software problems independently.	
Contents	Program software packages. Symbolic computation, numerical calculations, input and output of data and graphs.	
Requirements	None	
Bibliography	 Kofler, M., Gräbe, HG., "Mathematica", Addison-Wesley, 2002 Maeder, R., "Programming in Mathematica", 3. Aufl., 1997 Gaylord, R., Kamin, S.N., Wellin, P.R., "Introduction to Programming with Mathematica", TELOS, 1993 Maeder, R., "Informatik für Mathematiker und Naturwissenschaftler", Addison- Wesley, 1993 	
Assesment	Credit points are awarded to students who successfully complete the module. For further details, please refer to the examination regulations.	
Method of examination and examination requirements	Lecture "Introduction to computational Ora software" (2 SWS)	l exam: 20 Min.
	Exercise "Introduction to computational software" (2 SWS)	
	Examination: Weekly exercises about the module content. Points are awarded for the solution of the exercises. The prerequisite to the final exam is to achieve 50% of the total points during the semester.	