

## Specialization I - physics610

<i>Module No.</i>	<b>physics610</b>
<i>Category</i>	Elective
<i>Credit Points (CP)</i>	12
<i>Semester</i>	7.

### Module: Specialization I

*Module Elements:*

Nr	Course	Course No.	CP	Artkurz	Teaching hours	Semester
1	Molecular Physics I	MolPhys I	6	Lect. + ex.	3+1	WT
2	Solid State Theory I	TheoSolidSt	6	Lect. + ex.	3+1	WT
3	Condensed Matter Physics I	CondMatter I	6	Lect. + ex.	3+1	WT
4	Advanced Atomic, Molecular, and Optical Physics	physics620	6	Lect. + ex.	3+1	WT
5	Particle Physics	physics611	6	Lect. + ex.	3+1	WT
6	Accelerator Physics	physics612	6	Lect. + ex.	3+1	WT
7	Physics of Particle Detectors	physics618	6	Lect. + ex.	3+1	WT
8	Condensed Matter Physics	physics613	6	Lect. + ex.	3+1	WT
9	Laser Physics and Nonlinear Optics	physics614	6	Lect. + ex.	3+1	WT
10	Applied Photonics	physics619	6	Lect. + ex.	3+1	WT
11	Theoretical Particle Physics	physics615	7	Lect. + ex.	3+2	WT
12	Theoretical Hadron Physics	physics616	7	Lect. + ex.	3+2	WT
13	Theoretical Condensed Matter Physics	physics617	7	Lect. + ex.	3+2	WT

### Requirements:

**Preparation:** See with the description of the course

**Content:** Teaching of advanced fundamentals of physics from two research areas of physics in Bonn

**Aims/Skills:** The students will get acquainted with two research topics of today

**Form of Testing and Examination:** Requirements for the submodule examination (written or oral examination): successful work with exercises

**Length of Module:** 1 semester

**Maximum Number of Participants:** ca. 100

**Registration Procedure:** s. <https://basis.uni-bonn.de> u. <http://bamawww.physik.uni-bonn.de>

**Note:** Note: The student must achieve 12 CP from two different specialization areas (Particle Physics; Condensed Matter and Photonics; Theoretical Physics)