

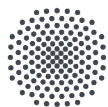
University of Stuttgart
Germany



PHYSICS International Master of Science

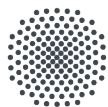
COURSES WINTERSEMESTER 2019/2020

Overview



Overview Courses - Workload 1st and 2nd Semester (60 ECTS)

1st Semester - 30 ECTS	2nd Semester - 30 ECTS
<u>Advanced Experimental Physics</u> 9 ECTS (graded) <u>Exam: End of 1st Semester</u> Condition: Passed exercises	Advanced Condensed Matter Physics 6 ECTS (graded) Exam: End of 2nd Semester Condition: Passed exercises
<u>Advanced Quantum Theory</u> 9 ECTS (graded) <u>Exam: End of 1st Semester</u> Condition: Passed exercises	Elective Lecture II (select one) <ul style="list-style-type: none"> • Advanced Statistical Physics • Solid State Spectroscopy • Solid State Theory 9 ECTS (graded) Exam: End of 2nd Semester Condition: Passed exercises
<u>Elective Lecture I (select one)</u> <ul style="list-style-type: none"> • Advanced Atomic Physics I&II • Physics of Soft and Biological Matter I&II • Quantum Computing I&II (Module Quantum Information Processing) • Quantum Technologies I&II • Simulation Methods in Physics I&II • Module Quantum Materials combine 2 of the following: Magnetism; Low-Dimensional Materials; Superconductivity, Topological Aspects 9 ECTS (graded) <u>Exam: End of 2nd Semester</u> Condition: Passed exercises of parts I&II, winter and summer semester	
<u>Advanced Physics Lab</u> 12 ECTS Course-related contributions	
<u>Seminar in Physics</u> 3 ECTS Course-related contributions	Advanced Seminar in Physics 3 ECTS (graded) Course-related contributions



Compulsory Courses

- **Advanced Experimental Physics (1st Semester)**

Lecture: 4 hours per week Jun.-Prof. Dr. Stefan Kaiser Dr. Artem Pronin Pfaffenwaldring 57 – 6.331 (6 th floor)	Mondays 9.30 am – 11.15 pm Thursdays 9.45 am – 11.15 am Starting Date: 14.10.2019
Exercises Dr. Artem Pronin Pfaffenwaldring 57 – 6.331 (6 th floor)	Wednesdays 11.30 am – 1 pm Starting Date: 23.10.2019

- **Advanced Quantum Theory (1st Semester)**

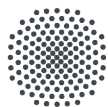
Lecture: 4 hours per week Prof. Dr. Siegfried Dietrich Pfaffenwaldring 57 – 6.331 (6 th floor)	Mondays 11.30 am – 1.15 pm Fridays 11.30 am – 1.15 pm Starting Date: 14.10.2019
Exercises Pfaffenwaldring 57 - 6.331 (6 th floor)	Thursdays 11.30 am – 1 pm Starting Date: 24.10.2019

- **Seminar in Physics (1st Semester)**

Seminar: 2 hours per week + Lab-Tours Dr. Helga Kumrić, Tetyana Shalomayeva, M.Sc. Pfaffenwaldring 57 - 6.331 (6 th floor)	Mondays 2.15 pm – 5 pm Starting Date: 14.10.2019
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- **Advanced Physics Lab (1st and 2nd Semester)**

Laboratory: 9 hours per week Dr. Bruno Gompf Pfaffenwaldring 57 – Physics Lab (1 st floor)	Tuesdays 8 am – 5 pm Starting Date: 22.10.2019
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Elective Courses I (Parts II in the Summer Semester)

- **Advanced Atomic Physics I**

Lecture: 2 hours per week Prof. Dr. Tilman Pfau Pfaffenwaldring 57 - 3.123 (3 rd floor)	Wednesdays 1 pm – 2.30 pm Starting Date: 16.10.2019
Exercises: Prof. Dr. Tilman Pfau Pfaffenwaldring 57 - 3.123 (3 rd floor)	Wednesdays and/or 2.45 pm – 4.15 pm Thursdays 2 pm – 3.30 pm Starting Date: 23.10.2019 / 24.10.2019

- **Magnetism (Module Quantum Materials)**

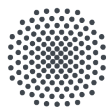
Lecture: 2 hours per week PD Dr. Eberhard Goering Pfaffenwaldring 57 - 4.331 (4 th floor)	Wednesdays 9.45 am – 11.15 am Starting Date: 16.10.2019
Exercises PD Dr. Eberhard Goering Pfaffenwaldring 57 - 4.331 (4 th floor)	Wednesdays 8am – 9.30 am Starting Date: 23.10.2019

- **Physics of Soft and Biological Matter I**

Lecture: 2 hours per week Dr. Paolo Magaretti Pfaffenwaldring 57 – 6.331 (6 th floor)	Wednesdays 8 am – 9.30 am Starting Date: 16.10.2019
Exercises: Dr. Paolo Magaretti	To be announced Wednesday, 16.10.2019 at 9.30am

- **Quantum Computing I (Module Quantum Information Processing)**

Lecture: 2 hours per week Prof. Dr. Jörg Wrachtrup Pfaffenwaldring 57 – 6.331 (6 th floor)	Wednesdays 9.45 am – 11.15 am Starting Date: 16.10.2019
Exercises: Prof. Dr. Jörg Wrachtrup Pfaffenwaldring 57 – 2.558 (2 nd floor)	Thursdays 1.30 pm – 3 pm + Tutorial Fridays tba Starting Date: 24.10.2019



- **Quantum Technologies I**

Lecture: 4 Hours per week Prof. Dr. Stefanie Barz Pfaffenwaldring 57 – 4.331 (3 rd floor)	Wednesdays Starting Date: 16.10.2019 1 pm – 2.30 pm
Exercises: Prof. Dr. Stefanie Barz Allmandring 3 – Seminar Room ICP	Fridays Starting Date: 18.10.2019 2 pm – 3.30 pm

- **Simulation Methods in Physics I**

Lecture: 2 Hours per week Prof. Dr. Holm Allmandring 3 – Seminar Room ICP	Thursdays Starting Date: 17.10.2019 2 pm – 3.30 pm
Exercises Prof. Dr. Holm Allmandring 3 – ICP Pool	Thursdays and/or Fridays Starting Date: 17.10.2019 / 18.10.2019 3.45 pm – 5.15 pm 2 pm – 3.30 pm

- **Superconductivity (Module Quantum Materials)**

Lecture: 2 Hours per week Dr. Artem Pronin Pfaffenwaldring 57 - V 57.06 (ground floor)	Fridays Starting Date: 18.10.2019 9.45 am – 11.15 am
Exercises Dr. Pronin Pfaffenwaldring 57 - 3.331 (3 rd floor)	Fridays Starting Date: 25.10.2019 8 am – 9.30 am

Additional Courses

Colloquium (Department of Physics and Max-Planck-Institutes)

- Stuttgarter Physikalisches Kolloquium (Fachbereich Physik und MPI)
(Weekly lecture by members of the department, MPI and Guests – no ECTS)

Colloquium Prof. Dr. Gießen Pfaffenwaldring 57 - V 57.01 or MPI 2D5	Tuesdays Starting Date: 15.10.2019 3.45 pm – 6 pm
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