

# Quantum Field Theory

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**Lecturer:** [Prof. Dr. Dietrich Bödeker](#)

**Courses:**

- [Quantum Field Theory](#) (lecture / 4 hours per week)
- [Exercises in Quantum Field Theory](#) (exercises / 2 hours per week)

**Credite points:** 10 CP (lecture + exercises + exam)

**Examination:** oral or written

**Topics:**

- classical field theory
- symmetries, Noether's theorem
- canonical field quantization
- Dirac field
- interacting fields
- Green's functions, S-matrix
- path integral quantization
- gauge fields
- renormalization
- radiative corrections