

Announcement for summer term 2024

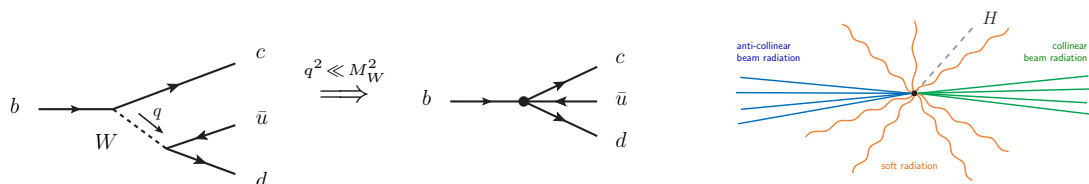
# Effective Field Theory

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The course provides an introduction to effective-field-theory methods that are used in many different branches of particle physics. It will first lay out the basic formalism based on mode separation, power counting and renormalisation-group techniques, and it will later focus on specific examples that are most relevant for the research pursued in TP1.

## Contents:

- Basic concepts of effective field theories
- Euler-Heisenberg theory
- Effective weak interactions
- Chiral perturbation theory
- Soft-collinear effective theory
- The Standard Model as a low-energy approximation



## Schedule:

Mon.	12:30 – 14:00	ENC-D 115	(lecture)
Thu.	14:15 – 15:45	ENC-D 115	(alternating between lecture and tutorial)

The lecture is aimed at students of the Master's program in Physics with a specialisation in particle physics. It requires knowledge of advanced topics in quantum field theory, in particular the concepts of renormalisation and the renormalisation group.