

FYS3500 Spring 2024 - Problem set 6

Topic: Chapter 3

Concepts of the week

Explain these concepts: Conserved quantities, quarks, spectator model

Make sure you have read the relevant chapters in the book and compendium before starting the exercises.

Problem 1: Feynman diagrams

Martin&Shaw2019 Problem 3.16

Problem 2: Production and decay of Y^-

Martin&Shaw2019 Problem 3.13. Do you manage to draw a diagram for the production and decay?

Problem 3: Parity and charge conjugation

Martin& Shaw2019 Problem 3.11

Problem 4 Allowed q. nr in the simple quark model

Martin&Shaw2019 Problem 3.21. If we detect a hadron with another combination of Q and C , what does that imply?