

Introduction to quantum electrodynamics
135.045 - (VO 2,0) 2014S

Homework #12 (Jun 2, 2014)

- 12.1 Draw all (at least 10) connected diagrams of forth order (e^4) for the propagation of an electron in an external potential $A_\mu^{\text{ext}}(x)$.
- 12.2 For one of these diagrams with 2 external potential insertions, write down the integral expression using Feynman rules. (Use a different diagram than your study partner or seat neighbor).
- 12.3 Determine the divergence property of this integral expression.