

COMPUTING METHODS IN HEP Exercise 1 Spring 2025

(To be returned by 10:15 on Friday 24.1.)

1. **Create a git repository** for this course by forking the repo

<https://gitlab.cern.ch/slehti/CompInHEP2024.git>

Commit all your answers into your git repo under `CompInHEP2024/Exercises/Ex<n>/returned_answers/<yourname>`. Never commit data in your repo, or it will get too big. Please make sure that I have permission to access your repo.

Please give me instructions by email to [sami.lehti\(at\)cern.ch](mailto:sami.lehti(at)cern.ch) how to access your git repository.

2. **Create a LaTeX document** which contains Feynman graphs for the lowest order contributions to electron-positron annihilation (Fig.1.8 in Ref [?]). Place the two figures in parallel, and use a joint caption below the figures. Add reference using BibTeX.



Figure 1: Feynman graphs for the lowest order contributions to electron-positron annihilation [?].

3. **Write a Makefile** which produces a pdf file from the source files used in 2.