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/CompInHEP2025.git

   Commit all your answers into your git repo under CompInHEP2025/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 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 [1]). Place the two figures in parallel, and use a joint caption below the figures. Add reference using BibTeX.

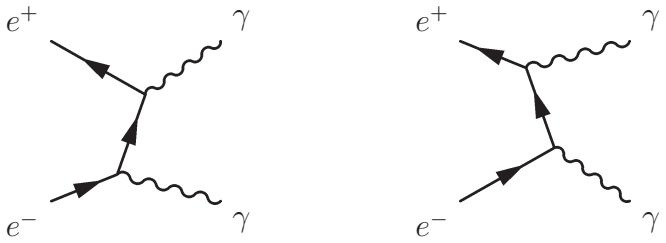

Figure 1: Feynman graphs for the lowest order contributions to electron-positron annihilation [1].

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

References

[1] B. Martin and G. Shaw, *John Wiley & Sons, 1992.*