As requested by several students, here is a list of references that could be helpful to learn more about the Standard Model and discover physics beyond it.

- Books at a rather elementary level comparable to the level of the summer lectures but we more details and more computations (including Feynman diagram computations):
  
a) “Introduction to Elementary Particles”
  by D. Griffiths
  CERN link.

b) “Introduction to high energy physics”
  by D.H. Perkins
  CERN link.

c) “Ten lectures on ElectroWeak interactions”
  by R. Barbieri
  CERN link.

d) “Weak interactions and modern particle theory”
  by H. Georgi
  Dover, (2009) 192 pages
  CERN link
  author’s home page.

e) “Concepts of Elementary Particle Physics”
  by M.E. Peskin
  Oxford University Press (2019) 380 pages
  CERN link
  authors’ home page.

f) “Quarks & Leptons: an introductory course in Modern Particle Physics” by F. Halzen and A.D. Martin
  CERN link.

g) “Modern particle physics’ by M. Thomson
  Cambridge University Press (2013) 570 pages
  CERN link.
More advanced books for those we want to dive more deeply into some of the topics discussed in the lectures and learn more about the joys of Quantum Field Theory (recommended for the students who intend to start a PhD in theoretical physics).

a) “Quantum field theory and the standard model”
   by M.D. Schwartz
   Cambridge University Press (2014) 863 pages
   CERN link
   authors’ home page

b) “An introduction to Quantum Field Theory”
   by M.E. Peskin and D.V. Shroeder
   CERN link
   authors’ home page

c) “Gauge field theories”
   by S. Pokorski
   CERN link

d) “The quantum theory of fields”
   by S. Weinberg
   CERN link

e) “Gauge theories of the strong, weak and electromagnetic interactions”
   by C. Quigg
   CERN link
   author’s home page

f) “QCD and collider physics”
   by R.K. Ellis, W.J. Stirling and B.R. Webber
   CERN link
   authors’ home page
g) “Journeys beyond the standard model”
   by P. Ramond
   CERN link.

- A few books on group theory and its applications in (high-energy) physics:
  a) “Lie algebras in particle physics”
     by H. Georgi
     CERN link.
  b) “Group theory in a Nutshell for Physicists”
     by A. Zee
     CERN link.
  c) “Group theory : a physicist’s survey”
     by P. Ramond
     Cambridge University Press (2010), 310 pages
     CERN link.