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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
  John Wiley ed., 2nd edition (2008) 470 pages
  CERN link.

  b) "Introduction to high energy physics"
  by D.H. Perkins
  Cambridge University Press, 4th edition (2000) 440 pages
  CERN link.

  c) "Ten lectures on ElectroWeak interactions"
  by R. Barbieri
  arXiv:0706.0684[hep-ph]
  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
  John Wiley ed., (1984) 396 pages
  CERN link.

  g) "Modern particle physics' by M. Thomson
  Cambridge University Press (2013) 570 pages
  CERN link.

h) "The Standard Model. A primer"
by C. Burgess and G. Moore
Cambridge University Press, (2007) 558 pages
CERN link
authors' home page.

i) "Gauge theory of elementary particle physics" by T.P. Cheng and L.F. Li
Oxford University Press, (1988) 548 pages
CERN link
authors' home page.

- 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
Westview Press (1995) 864 pages
CERN link
authors' home page.

c) "Gauge field theories"
by S. Pokorski
Cambridge University Press, (2000) 632 pages
CERN link.

d) "The quantum theory of fields"
by S. Weinberg
Cambridge University Press, vol. 1 (1995) 635 pages and vol. 2 (2005) 489 pages
CERN link.

e) "Gauge theories of the strong, weak and electromagnetic interactions"
by C. Quigg
Westview Press, (1997) 352 pages
CERN link
author's home page.

f) "QCD and collider physics"
by R.K. Ellis, W.J. Stirling and B.R. Webber
Cambridge University Press, (2003) 452 pages
CERN link
authors' home page.

g) “Journeys beyond the standard model”
by P. Ramond
Westview Press, (1999) 392 pages
CERN link.

- A few books on group theory and its applications in (high-energy) physics:

a) “Lie algebras in particle physics”
by H. Georgi
Frontiers in Physics, Cambridge : Perseus, 2nd edition (1999) 320 pages
CERN link.

b) “Group theory in a Nutshell for Physicists”
by A. Zee
Princeton University Press, (2016) 613 pages
CERN link.

c) “Group theory : a physicist’s survey”
by P. Ramond
Cambridge University Press (2010), 310 pages
CERN link.