

Bibliography

Below I have listed some books that I was using occasionally when preparing my lectures during the past years. Thus, the reader may find there more details concerning the topics discussed in the present text. One item of the list is rather special, so it is worth mentioning explicitly; I have in mind [23] and the reason is as follows. In my experience, the mathematically minded students sometimes complain that the standard QFT methods are somewhat sloppy (though efficient) and strive for due rigorousness. The remarkable book [23], written by a professional mathematician (with deep respect for physics) responds, at least partly, to such needs. So, I have included it in the list, for the reader's convenience. Needless to say, apart from the limited set of textbooks and monographs displayed here, there are many other good books covering the huge and fascinating area of the quantum field theory. Further, the list of relevant literature continues with references to original and review papers dealing with some particular themes treated in these lecture notes. The selection of cited papers has been rather minimalistic; some of them reflect the history of QFT and particle physics, while the other ones might (along with the comprehensive books) arouse the reader's interest and open them new horizons in the rich QFT landscape. In particular, the papers cited in ref. [56] contain a remarkable defence of the "conventional QFT" (i.e. the approach pursued also in the present lecture notes) in contrast to a rigorous axiomatic theory, which might be a "holy grail" for a mathematically minded reader. One more remark is perhaps in order here. It is clear that the present text is oriented primarily to possible applications in particle physics. In fact, the scope of quantum field theory is much broader. In particular, QFT methods are highly efficient also in the condensed matter physics or nuclear physics, i.e. in the theory of many-body systems in general. The reader interested in these aspects of quantum field theory may find some relevant information e.g. in the book [10].

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