

Literatur

- [Aba11] K.N. Abazajjan et al. Cosmological and astrophysical neutrino mass measurements. *Astropart. Phys.* **36**:177, 2011 und arXiv:1103.5083v1 [astro-ph.CO].
- [Abe95] F. Abe et al. Observation of Top Quark Production in Proton Antiproton Collisions with the Collider Detector at Fermilab. *Phys. Rev. Lett.* **74**:2626, 1995.
- [Adl64] S.L. Adler. Tests of the conserved vector current and partially conserved axial-vector current hypotheses in high-energy neutrino reactions. *Phys. Rev.* **B963**:135, 1964
- [Alb87] Argus Collaboration, H. Albrecht et al. Observation of B^0 - $\bar{B}^0$ Mixing. *Phys. Lett.* **192B**:245, 1987.
- [Alt77] G. Altarelli, G. Parisi. Asymptotic Freedom in Parton Language. *Nucl. Phys.* **B126**:298, 1977.
- [Alv99] L. Alvarez-Gaume et al. Violation of Time-Reversal Invariance and CP-Lear Measurements. *Phys. Lett.* **B458**:347, 1999.
- [Ang98] A. Angelopoulos et al. First Direct Observation of Time-Reversal Noninvariance in the Neutral-Kaon System. *Phys. Lett.* **B444**:43, 1998.
- [Arb013] A. Arbey et al. Supersymmetrie confronts $B_s \rightarrow \mu^+ \mu^-$: Present and future status. *Phys. Rev.* **D87**:035026, 2013 und arXiv:1212.4887v1.
- [Arr03] J. Arrington. How well do we know the electromagnetic form factors of the proton?. *Phys. Rev.* **C68**:034325, 2003.
- [Asw11] V.N. Aseev et al. Upper limit on antineutrino mass from the Troitsk experiment. *Phys. Rev.* **D84**:112003, 2011.
- [Atc96] I.J.R. Atchison, A.J.G. Hey. *Gauge Theories in Particle Physics*. Adam Hilger, Berlin 1996.
- [ATL12] ATLAS Collaboration. G. Aad et al. Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC. *Phys. Lett.* **B716**:1, 2012 und arXiv:1207.7214v1 [hep-ex].

- [ATL99] ATLAS Collaboration. *ATLAS Technical Design Report*. ATLAS TDR 15, CERN/LHCC 99-15, Genf 1999.
- [Aug12] P. Abreu et al. Measurement of the proton-air cross-section at $\sqrt{s} = 57$ TeV with the Pierre Auger Observatory. arXiv 1208.1520v2.
- [Bal69] J. Ballam et al. Total and Partial Photoproduction Cross-Sections at 1.4, 2.8, 4.7 GeV. Phys. Rev. Lett. **23**:498, 1969.
- [Bar64] V.E. Barnes et al. Observation of a Hyperon with Strangeness Minus Three. Phys. Rev. Lett. **12**:204, 1964.
- [Bar86a] J.D. Barrow, F.D. Tipler. *The Anthropic Cosmological Principle*. Clarendon Press, Oxford 1986.
- [Bar86b] JADE Collaboration, W. Bartel et al. Experimental Studies on Multijet Production in e^+e^- -Annihilation at Petra Energies. Z. Phys. **C33**:23, 1986.
- [Bar87] V.D. Barger, R.J.N. Phillips. *Collider Physics*. Addison-Wesley, Redwood City, CA 1987. Revised edition 1996
- [Bec012] P. Bechtle et al. Constrained Supersymmetry after two years of LHC data: a global view with Fittino JHEP **1206**:098, 2012 und arXiv:1204.4199v1. Für eine neuere Analyse siehe arXiv:1310.3045v1
- [Bec65] C. Becchi, G. Morpurgo. Test of the Nonrelativistic Quark Model for Elementary Particles: Radiative Decays of Vector Mesons. Phys. Rev. **140B**:687, 1965.
- [Beh69] H. Behrens, J. Jänecke. Numerical Tables for β -Decay and Electron Capture. In: H. Schopper (ed.), *Landolt-Börnstein, New Series, Vol. 4*, Springer, New York, Berlin, Heidelberg 1969.
- [Ben06] Muon (g-2) Collaboration, G.W. Bennett et al. Final Report of the Muon E821 Anomalous Magnetic Moment Measurement at BNL. Phys. Rev. **D73**:072003, 2006 und arXiv:hep-ex/0602035v1.
- [Ber14] Ch. Berger, Photon Structure Function Revisited, Journal of Modern Physics, 2015,6,1023 und arXiv:1404.3551
- [Ber70] Ch. Berger et al. Coulomb Scattering of 1 MeV Electrons in Aluminum Foils. Z. Phys. **235**:191, 1970.
- [Ber71] S.M. Berman, J.D. Bjorken, J. Kogut. Inclusive Processes at High Transverse Momentum. Phys. Rev. **D4**:3388, 1971.
- [Ber77] Ch. Berger et al. Electroproduction of Neutral Pions and Test of the Quark-Parton Model. Phys. Lett. **70B**:471, 1977.
- [Ber80] G. Berendt, E. Weimar. *Mathematik für Physiker*. Physik-Verlag, Weinheim 1980.
- [Ber87a] Ch. Berger, W. Wagner. Photon-Photon Reactions. Phys. Rep. **146**:1, 1987.
- [Ber87b] Ch. Berger et al. Measurement and QCD Analysis of the Photon Structure Function $F_2(x, q^2)$. Nucl. Phys. **B281**:365, 1987.

- [Ber87c] Ch. Berger et al. The Frejus Nucleon Decay Detector. Nucl. Instrum. Methods **A262**:463, 1987.
- [Ber88] F.A. Berends, A. Böhm. Lepton Pair Production, Radiative Corrections and Elektroweak Parameters. In: P. Söding, A. Ali (eds.), *High Energy Electron-Positron Physics*, World Scientific, River Edge, NJ 1988.
- [Bet07] K. Bethge. *Kernphysik*, 3. Auflage. Springer, Berlin, Heidelberg 2007.
- [Bet09] S. Bethke, The 2009 World Average of α_s . Eur. Phys. J. **C64**:689, 2009 und arXiv:908.1135v2.
- [Bet32] H.A. Bethe. Bremsformel für Elektronen relativistischer Geschwindigkeit. Z. Physik, **76**:293, 1932.
- [Bet53] H.A. Bethe. Multiple Scattering. Phys. Rev. **89**:1256, 1953.
- [Bil012] S.M. Bilenky, C. Giunti. Neutrinoless double-beta decay: A brief review. Mod. Phys. Lett. **A27**:1230015, 2012 und ArXiv:1203.5250v3 [hep-ph].
- [Bjo79] J.D. Bjorken. Asymptotic Sum Rules at Infinite Momentum. Phys. Rev. **179**:1547, 1979.
- [Bjo90] J.D. Bjorken, S.D. Drell. *Relativistische Quantenmechanik*. Spektrum Akademischer Verlag, Heidelberg 1990.
- [Bod78] E. Bodenstein. *Experimente der Kernphysik und ihre Deutung*. Bibliographisches Institut, Mannheim 1978.
- [Boe80] T. Boehringer et al. Observation of Υ , Υ' and Υ'' at the Cornell Electron Storage Ring. Phys. Rev. Lett. **44**:1111, 1980.
- [BRM03] P. Braun-Munzinger, K. Redlich, J. Stachel. Particle Production in Heavy Ion Collisions. *nucl-th*, 0304013, e-Print archive, <http://xxx.uni-augsburg.de>
- [Bud75] V.M. Budnev et al. The Two Photon Particle Production Mechanism. Physical Problems. Applications. Equivalent Photon Approximation. Phys. Rep. **15C**:181, 1975.
- [Bur88] H. Burkhard et al. First Evidence for Direct CP Violation. Phys. Lett. **206B**:169, 1988.
- [Car00] M. Carena et al. Reconciling the Two-Loop Diagrammatic and Effective Field Theory Computations of the Mass of the lightest CP -even Higgs Boson in the MSSM. Nucl. Phys. **B580**:29, 2000 und arXiv:hep-ph/0001002v3.
- [Car90] R. Carosi et al. A Measurement of the Phases of the CP Violating Amplitudes in $K^0 \rightarrow 2\pi$ Decays and Test of CP Invariance. Phys. Lett. **237B**:303, 1990.
- [Che95] T.-P. Cheng, L.-F. Li. *Gauge Theory of Elementary Particle Physics*. Clarendon Press, Oxford 1995
- [Chr64] J.H. Christenson et al. Evidence for the 2π Decay of the K_2 -Meson. Phys. Rev. Lett. **13**:138, 1964.
- [Chr72] C.J. Christensen et al. Free Neutron Beta Decay Half-Life. Phys. Rev. **D5**:1628, 1972.

- [Clo79] F.E. Close. *An Introduction to Quarks and Partons*. Academic Press, London 1979.
- [CMS10] CMS Collaboration, V Khachatryan et al. Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at $\sqrt{s}=0.9$ and 2.36 GeV. J. High Energy Phys. **02**:041, 2010. arXiv:1002.0621.
- [CMS12a] CMS Collaboration, S. Chatrchyan et al. Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC. Phys. Lett. **B716**:30, 2012 und arXiv:1207.7235v1 [hep-ex].
- [CMS12b] CMS Collaboration, S. Chatrchyan et al. On the mass and spin-parity of the Higgs boson candidate via its decay to Z boson pairs. Phys.Rev.Lett.110.081803 und arXiv:1212.6639v1 [hep-ex], erratum: Phys. Rev. Lett. 110, 189901 (2013).
- [CMS13] CMS Collaboration, S. Chatrchyan et al. Search for gluino mediated bottom- and top-squark production in multijet final states in pp collisions at 8 TeV. Phys. Lett. **B725**:243, 2013 und arXiv:1305.2390v2.
- [Com81] F. Combley, F.J.M. Farley. The CERN Muon $g-2$ Experiment. Phys. Rep. **68**:93, 1981.
- [Com83] E.D. Commins, P.H. Bucksbaum. *Weak Interaction of Leptons and Quarks*. Cambridge University Press, Cambridge 1983.
- [Cos12] G. Costa, G. Fogli. *Symmetries and Group Theory in Particle Physics*. Lecture Notes in Physics 823. Springer 2012.
- [Cou58] E. Courant, H. Snyder. The Theory of Alternating Gradient Synchrotrons. Ann. Phys. **3**:1, 1958.
- [Cri75] L. Criegee et al. Confirmation of the New 3700 MeV Narrow Resonances in e^+e^- -Collisions. Phys. Lett. **B53**:489, 1975.
- [Dan62] G. Danby et al. Observation of High-Energy Neutrino Reactions and the Existence of Two Kinds of Neutrinos. Phys. Rev. Lett. **9**:36, 1962.
- [Day012] Daya Bay Collaboration, F.P. An et al. Observation of electron-antineutrino disappearance at Daya Bay. Phys. Rev. Lett **108**:171803, 2012 und arXiv:1203.1669v2 [hep-ex].
- [Ded01] A. Dedes, H.K. Dreiner, U. Nierste. Correlation of $B_s \rightarrow \mu^- \mu^+$ and $(g-2)_\mu$ in Minimal Supergravity. Phys. Rev. Lett. **87**:251804, 2001 und arXiv:hep-ph/0108037v3.
- [Dir81] P.A.M. Dirac. *The Principles of Quantum Mechanics*. Oxford University Press, Oxford 1981.
- [Dit011] LHC Higgs cross section working group, S. Dittmaier et al. Handbook of LHC Higgs cross sections: 1. Inclusive observables. arXiv:1101.0593v3 [hep-ph].
- [Dok95] Y.L. Dokshitzer, B.R. Webber. Calculation of Power Corrections to Hadronic Event Shapes. Phys. Lett. **B352**:451, 1995.

- [Don92] A. Donnachie, P.V. Landshoff. Total Cross Sections. Phys. Lett. **B296**:227, 1992.
- [Don02] S. Donnachie et al. *Pomeron Physics and QCD*. Cambridge University Press 2002
- [Dra011] P. Draper et al. Implications of a 125 GeV Higgs for the MSSM and Low-Scale SUSY Breaking. Phys. Rev. **D85**:095007, 2011 und arXiv:1112.3068v1
- [Duc99] G. Duckeck, W. Hollik. *Elektroweak Precision Tests at LEP*. Springer, Berlin, Heidelberg 1999.
- [Eic80] E. Eichten et al. Charmonium, Comparison with Experiment. Phys. Rev. **D21**:203, 1980.
- [Eic85] E. Eichten, S. Dawson, C. Quigg. Search for Supersymmetric Particles in Hadron–Hadron Collisions. Phys. Rev. **D31**:1581, 1985.
- [Eic86] E. Eichten et al. Supercollider Physics. Rev. Mod. Phys. **56**:579, 1984.
- [Ell10] R.K. Ellis, W.J. Stirling, B.R. Webber. *QCD and Collider Physics*. Cambridge University Press, Cambridge, 2010.
- [Ell76] J. Ellis, M.K. Gaillard und G. Ross. Search for Gluons in $e^+ e^-$ -Annihilation. Nucl. Phys. **B111**:253, 1976. erratum Nucl. Phys. **B130**:516, 1977.
- [Eng64] F. Englert, R. Brout. Broken Symmetry and the Mass of Gauge Vector Mesons. Phys. Rev. Lett. **13**:321, 1964.
- [Euk90] Euklid. *Die Elemente. Ostwalds Klassiker der exakten Wissenschaften*, Vol. 23. Harri Deutsch, Frankfurt 1990.
- [Fel69] B.T. Feld. *Models of Elementary Particles*. Blaisdell, Waltham, MA 1969.
- [Fey63] R.P. Feynman. *The Feynman Lectures on Physics*, Bd. 1, Kap. 1. Addison Wesley 1963. Deutsche Ausgabe z.B. *Feynman-Vorlesungen über Physik*, Oldenbourg 2009.
- [Fey72] R.P. Feynman. *Photon–Hadron-Interactions*. W.A. Benjamin, Reading, MA 1972.
- [Fie78] R.D. Field, R.P. Feynman. A Parameterization of the Properties of Quark Jets. Nucl. Phys. **B136**:1, 1978.
- [Fuk86] M. Fukugita, T. Yanagida. Baryogenesis without Grand Unification. Phys. Lett. **B174**:45, 1986.
- [Gai74] M.K. Gaillard, B.W. Lee. Rare Decay Modes of K -Mesons in Gauge Theories. Phys. Rev. **D10**:897, 1974.
- [Gas75] S. Gasiorowicz. *Elementarteilchenphysik*. Bibliographisches Institut, Mannheim 1975.
- [Gas82] J. Gasser, H. Leutwyler. Quark Masses. Phys. Rep. **87**:77, 1982.
- [Gay01] Jefferson Lab Hall A Collaboration, O. Gayou et al. Measurement of the elastic electromagnetic form factor ratio $\mu_p G_E^p / G_M^p$ via polarization transfer. Phys. Rev. **C64**:038202, 2001.

- [Geo09] H. Georgi. *Weak Interactions and Modern Particle Theory*. Dover Publications 2009
- [Geo74] H. Georgi, S.L. Glashow. Unity of all Elementary Particle Forces. *Phys. Rev. Lett.* **32**:438, 1974.
- [Geo82] H. Georgi. *Lie Algebras in Particle Physics*. Addison-Wesley, Redwood City, CA 1982.
- [GIM70] S.L. Glashow, J. Illiopoulos, L. Maiani. Weak Interactions with Lepton Hadron Symmetry. *Phys. Rev.* **D2**:1285, 1970.
- [Gje74] S. Gjesdahl et al. A measurement of the $K_L - K_S$ mass difference from the charge asymmetry in semileptonic kaon decays. *Phys. Lett.* **52B**:113, 1974.
- [Glü63] R.L. Glückstern. Uncertainties in Track Momentum and Direction due to Multiple Scattering and Measurement Errors. *Nucl. Instrum. Methods* **24**:381, 1963.
- [Gol64] M.L. Goldberger, K.M. Watson. *Collision Theory*. John Wiley, New York, London, Sidney 1964.
- [Gre05] W. Greiner, B. Müller. *Quantenmechanik, Symmetrien* Verlag Harri Deutsch 2005.
- [Gre10] W. Greiner, S. Schramm, E. Stein. *Quantum chromodynamics*, 3. Auflage. Springer Verlag, Berlin 2010.
- [Gro04] A.G. Grozin. *Heavy Quark Effective Theory*. Springer Tracts in Modern Physics, Springer Verlag, 2004.
- [Gro58] L. Grodzins, M. Goldhaber, A.W. Sunyar. Helicity of Neutrinos. *Phys. Rev.* **109**:1015, 1958.
- [Gru93] C. Grupen. *Teilchendetektoren*. Wissenschaftsverlag, Mannheim 1993.
- [Gun90] J.F. Gunion, H.E. Haber, G. Kane, S. Dawson. *The Higgs Hunters Guide*. Addison-Wesley, Redwood City, CA 1990.
- [Hab85] H.T. Haber, G.L. Kane. The Search for Supersymmetry: Probing Physics Beyond the Standard Model. *Phys. Rep.* **117**:75, 1985.
- [Han63] L.N. Hand. Experimental Investigation of Pion Electroproduction. *Phys. Rev.* **129**:1834, 1963.
- [Har79] H. Harari. A Schematic Model of Quarks and Leptons. *Phys. Lett.* **86B**:83, 1979.
- [Has73] F.J. Hasert et al. Search for Elastic Muon-Neutrino Scattering. *Phys. Lett.* **46B**:121, 1973.
- [Hei76] W. Heisenberg. Was ist ein Elementarteilchen? *Die Naturwissenschaften* **63**:1, 1976.
- [HER10] H1 and ZEUS Collaborations, F.D. Aaron et al. *JHEP* (Journal of High Energy Physics). **2010**:109, 2010 und arXiv:0911.0884v2 [hep-ex].
- [HFG012] Heavy Flavor Averaging Group, Y. Ambis et al. Averages of b -hadron, c -hadron, and τ -lepton properties as of early 2012. ar-

- Xiv:1207.1158v1 und <http://www.slac.stanford.edu/xorg/hfag>
- [Hin08] F. Hinterberger. *Physik der Teilchenbeschleuniger und Ionenoptik*. Springer, Berlin, Heidelberg 2008.
 - [Hof56] R. Hofstadter. Electron Scattering and Nuclear Structure. *Rev. Mod. Phys.* **28**:214, 1956.
 - [Hol90] W.J.L. Hollik. Radiative corrections and their role for precision tests of the electroweak theory. *Fortsch. Physik* **38**:165, 1990.
 - [Hon96] K. Honscheid, T.E. Browder, D. Pedrini. Nonleptonic Decays and Lifetimes of Charm and Beauty Particles. *Ann. Rev. Nucl. Part. Sci.* **46**:395, 1996.
 - [Hua92] K. Huang. *Quarks, Leptons and Gauge Fields*. World Scientific, Singapore 1992.
 - [ILC10] <http://www.linearcollider.org>
 - [Ina81] T. Inami, C.S. Lim. Effects of Superheavy Quarks and Leptons in Low-Energy Weak Processes $K_L \rightarrow \mu\bar{\mu}$, $K^+ \rightarrow \pi^+\nu\bar{\nu}$ and $K^0 \leftrightarrow \bar{K}^0$. *Progr. Theor. Phys.* **65**:297, 1981.
 - [Jac59] M. Jacob, G.C. Wick. On the General Theory of Collisions for Particles with Spin. *Ann. Phys.* **7**:404, 1959.
 - [Jac98] J.D. Jackson. *Classical Electrodynamics*. Wiley, New York 1998. Deutsche Ausgabe *Klassische Elektrodynamik*. Gruyter 2006
 - [Jau76] J.M. Jauch, F. Rohrlich. *The Theory of Electrons and Photons*. Springer, New York, Berlin, Heidelberg 1976.
 - [K2K03] K2K Collaboration, M.H. Ahn et al. Indications of Neutrino-Oscillation in a 250 km Long-baseline Experiment. *Phys. Rev. Lett.* **90**:041801, 2003.
 - [Kae010] F. Kaether et al. Reanalysis of the GALLEX solar neutrino flux and source experiments. *Phys. Lett.* **B685**:47, 2010 und arXiv:1001.2731v1 [hep-ex].
 - [Kam011] KamLAND Collaboration, A. Gando et al. Constraints on Θ_{13} from A Three-Flavor Oscillation Analysis of Reactor Antineutrinos at KamLAND. *Phys. Rev.* **D83**:052002, 2011 und arXiv:1009.4771v3 [hep-ex].
 - [Kan94] G.L. Kane et al. Study of constrained minimal supersymmetry. *Phys. Rev.* **D49**:6173, 1994.
 - [Kay012] B. Kayser. Tensions with the three-neutrino paradigm. arXiv:1207.2167v1 [hep-ph].
 - [Kes60] P. Kessler. Sur une méthode simplifiée de calcul pour les processus relativistes en électrodynamique quantique. *Nuovo Cimento* **17**:809, 1960.
 - [Kim93] C.W. Kim, A. Pevsner. *Neutrinos in Physics and Astrophysics*. Harwood Academic Publishers, Chur 1993.
 - [Kle03] K. Kleinknecht. *Uncovering CP Violation*. Springer Tracts in Modern Physics, Stuttgart 2003.

- [Kle05] K. Kleinknecht. *Detektoren für Teilchenstrahlung*. Teubner, Stuttgart 2005.
- [Kob73] M. Kobayashi, T. Maskawa. *CP*-violation in the Renormalizable Theory of Weak Interaction. *Prog. Theor. Phys.* **49**:652, 1973.
- [Kod01] Donut Collaboration, K. Kodama et al. Observation of τ Neutrino Interactions. *Phys. Lett.* **B504**:218, 2001
- [Kol94] E.W. Kolb, M.S. Turner. *The Early Universe*. Westview Press 1994.
- [Lae92] E. Laermann. Interquark Forces. In: H.A. Kastrup, P.M. Zerwas (eds.), *QCD, 20 Years Later*, World Scientific, Singapore 1992.
- [Lam09] S.K. Lamoreaux, R. Golub. Experimental Searches for the Neutron Electric Dipole Moment. *J. Phys.* **G36**:104002, 2009.
- [LHCb12] LHCb Collaboration, R. Aaij et al. First evidence for the decay $B_s^0 \rightarrow \mu^- \mu^+$. *Phys. Rev. Lett.* **110**:021801, 2012 und arXiv:1211.2674v1.
- [Low60] F. Low. Proposal for Measuring the π^0 Lifetime by π^0 Production in Electron–Electron or Electron–Positron Collisions. *Phys. Rev.* **120**:582, 1960.
- [Lyo85] L. Lyons. Quark Search Experiments at Accelerators and in Cosmic Rays. *Phys. Rep.* **129**:225, 1985.
- [Mar82] M. Marinelli, G. Morpurgo. Searches of Fractionally Charged Particles with the Magnetic Levitation Technique. *Phys. Rep.* **85**:161, 1982.
- [Mar99] S.P. Martin. A Supersymmetry Primer. *hep-ph*, 9709356, e-Print archive, <http://xxx.uni-augsburg.de>
- [May02] T. Mayer-Kuckuk. *Kernphysik*. Teubner, Stuttgart 2002.
- [Mes90] A. Messiah. *Quantenmechanik*. de Gruyter, Berlin 1990.
- [Mik86] S.P. Mikheyev, A.Y. Smirnov. Resonant Amplification of ν Oscillations in Matter and Solar-Neutrino Spectroscopy. *Nuovo Cimento* **9C**:17, 1986.
- [Mil63] R. Milburn. Electron Scattering by an Intense Polarized Photon Field. *Phys. Rev. Lett.* **10**:75, 1963.
- [MIN011] MINOS Collaboration, P. Adamson et al. Measurement of the Neutrino Mass Splitting and Flavor Mixing by MINOS. *Phys. Rev. Lett.* **106**:181801, 2011.
- [Moh92] R.N. Mohapatra. *Unification and Supersymmetry*. Springer, Berlin, Heidelberg 1992.
- [Mot65] N.F. Mott, H.S.W. Massey. *The Theory of Atomic Collisions*. Clarendon Press, Oxford 1965.
- [MUF10] <http://map.fnal.gov>
- [Nak03] T. Nakano et al. Evidence for a Narrow $S = +1$ Baryon Resonance in Photoproduction from the Neutron. *Phys. Rev. Lett.* **91**:012002, 2003.

- [Nam61] Y. Nambu, G. Jona-Lasino. Dynamical Model of Elementary Particles Based on Analogy with Superconductivity. *Phys. Rev.* **122**:345, 1961.
- [Nel85] W.R. Nelson et al. *The EGS4 Code System*. SLAC-265, SLAC, Stanford, USA 1985.
- [Nik68] M. Nikolic. *Kinematics and Multiparticle Systems*. Gordon and Breach, New York 1968.
- [Nis00] R. Nisius. The Photon Structure from Deep Inelastic Electron Photon Scattering. *Phys. Rep.* **332**:165, 2000.
- [Nir01] Y. Nir. *CP Violation—A New Area* In: C.T.H. Davies, S.M. Playfer (ed.), *Heavy Flavour Physics, Proceedings of the fifty-fifth Scottish Universities Summer School in Physics*, IoP 2001.
- [Nir92] Y. Nir. *CP Violation*. In: L. Vassilian, (ed.), *Twentieth Annual Summer Institute on Particle Physics*, SLAC PUB 5874, SLAC, Stanford, USA 1992.
- [Occ47] G.P.S. Occhialini, C.F. Powell. Nuclear Disintegration Produced by Slow Charged Particles of Small Mass. *Nature* **159**:186, 1947.
- [Oku65] L.B. Okun. *Weak Interactions of Elementary Particles*. Pergamon Press, Oxford 1965.
- [Pas07] S. Pascoli, S.T. Petcov, A. Riotto. Leptogenesis and Low Energy CP Violation in Neutrino Physics. *Nucl. Phys.* **B774**:1, 2007 und arXiv:hep-ph/0611338v2.
- [PDG12] Particle Data Group, J. Beringer et al. (Particle Data Group), *Phys. Rev. D* **86**, 010001 (2012) und <http://pdg.lbl.gov>.
- [Per75] M.L. Perl et al. Evidence for Anomalous Lepton Production in e^+e^- -Annihilation. *Phys. Rev. Lett.* **35**:1489, 1975.
- [Pes95] M.E. Peskin, D.V. Schroeder. *An Introduction to Quantum Field Theory*. Addison-Wesley, Reading, MA 1995.
- [Qui83] C. Quigg. *Gauge Theory of the Strong, Weak and Electromagnetic Interactions*. Benjamin Cummings, Reading, MA 1983.
- [QWG05] Quarkonium Working Group, N. Brambilla et al. CERN-2005-005 (CERN, Geneva, 2005). arXiv:hep-ph/0412158.
- [QWG11] Quarkonium Working Group, N. Brambilla et al. *Eur. Phys. J.* **C71**:1534, 2011 und arXiv:1010.5827v3 [hep-ph]
- [Ram90] N.F. Ramsey. Electric Dipole Moment of the Neutron. *Ann. Rev. of Nucl. and Part. Science* **40**:1, 1990.
- [Rei59] F. Reines, C.L. Cowan. Measurement of the Free Antineutrino Absorption Cross Section by Protons. *Phys. Rev.* **113**:273, 1959.
- [Ren92] B. Renk. *Meßdatenerfassung in der Kern- und Teilchenphysik*. Teubner, Stuttgart 1992.
- [Roc47] G.D. Rochester, C.C. Butler. Evidence for the Existence of a New Unstable Elementary Particle. *Nature* **160**:855, 1947.
- [Rol02] H. Rollnik. *Quantentheorie*. Springer Berlin, Heidelberg 2002.

- [Ros65] B. Rossi. *High Energy Particles*. Prentice Hall Inc., Englewood Cliffs, NJ 1965.
- [Roy67] H.R. van Royen, V.F. Weisskopf. Hadron Decay Processes and the Quark Model. *Nuovo Cimento* **A50**:617, 1967.
- [Ruj74] A. De Rujula et al. Possible non-Regge Behaviour of Electroproduction Structure Functions. *Phys. Rev.* **D10**:1649, 1974.
- [Ruj78] A. De Rujula et al. QCD Predictions for Hadronic Final States in e^+e^- -Annihilation. *Nucl. Phys.* **B138**:387, 1978.
- [Sak69] J.J. Sakurai. *Currents and Mesons*. The University of Chicago Press, Chicago, London 1969.
- [Sch06] P. Schneider. *Einführung in die extragalaktische Astronomie und Kosmologie*. Springer 2005.
- [Sch55] L.I. Schiff. *Quantum Mechanics*. McGraw-Hill, New York, London 1955.
- [Sch61] S. Schweber. *An Introduction to Relativistic Quantum Field Theory*. Row Peterson, New York 1961.
- [Sch97] N. Schmitz. *Neutrinophysik*. Teubner, Stuttgart 1997.
- [Sha63] A. de Shalit, I. Talmi. *Nuclear Shell Theory*. Academic Press, New York, London 1963.
- [Sjo82] T. Sjostrand. The Lund Monte Carlo for Jet Fragmentation. *Comput. Phys. Commun.* **27**:243, 1982.
- [SKC04] Super-Kamiokande Collaboration, Y. Ashie et al. Evidence for an Oscillatory Singnature in Atmospheric Neutrino Oscillations. *Phys. Rev. Lett.* **93**:101801, 2004.
- [Spi92] H. Spiesberger et al. Radiative corrections at HERA. *Proceedings of the workshop Physics at HERA*, hrsg. von W. Buchmüller, G. Ingelman, Bd. 2. CERN-TH-6447-92, 1992.
- [Spi98] M. Spira, P.M. Zerwas. Elektroweak Symmetry Breaking and Higgs Physics. *Lecture Notes in Physics* **512**:161, 1998 und arXiv:hep-ph/9803257v2.
- [Ste03] S. Stepanyan et al. Observation of an Exotic $S = +1$ Baryon in Exclusive Photoproduction from the Deuteron. *Phys. Rev. Lett.* **91**:252001, 2003.
- [Ste50] J. Steinberger, W.K.H. Panofsky, J.S. Steller. Evidence for the Production of Neutral Mesons by Photons. *Phys. Rev.* **78**:802, 1950.
- [Sti94] W.J. Stirling, A.D. Martin, R.G. Roberts. Parton Distributions of the Proton. *Phys. Rev.* **D50**:6734, 1994.
- [Sur91] L.R. Surguladze, M.A.Samuel. Total Hadronic Cross Section in e^+e^- Annihilation at the Four Loop Level of Perturbative QCD. *Phys. Rev. Lett.* **66**:560, 1991.
- [Tsa74] Y.S. Tsai. Pair Production and Bremsstrahlung of Charged Leptons. *Rev. Mod. Phys.* **46**:815, 1974.
- [Wae74] B.L. van der Waerden. *Group Theory and Quantum Mechanics*. Springer, Berlin, Heidelberg 1974.

- [Wal73] T.F. Walsh, P. Zerwas. Two Photon Processes in the Parton Model. Phys. Lett. **44B**:195, 1973.
- [Wei00] S. Weinberg. *The Quantum Theory of Fields*. Cambridge University Press, Cambridge 2000.
- [Wei34] C.F. von Weizsäcker. Ausstrahlung bei Stößen sehr schneller Elektronen. Z. Phys. **88**:612, 1934.
- [Wei72] S. Weinberg. *Gravitation and Cosmology*. Wiley, New York 1972.
- [Wei89] S. Weinberg. The Cosmological Constant Problem. Rev. Mod. Phys. **61**:1, 1989.
- [Wei93] S. Weinberg. *Der Traum von der Einheit des Universums*. Piper, München 1993.
- [Wij79] B.H. Wijk, G. Wolf. Electron-Positron Interactions. Springer Tracts in Modern Physics **86**:1, 1979.
- [Wil09] G. Wilk, W. Włodarczyk. Power laws in elementary and heavy-ion collisions. Eur. Phys. J. **A40**:299, 2009. arXiv:0810.2939.
- [Wil96] K. Wille. *Physik der Teilchenbeschleuniger und Synchrotronstrahlungsquellen*, 2. Auflage. Teubner, Stuttgart 1996 und *Physics of Particle Accelerators*. Oxford University Press 2000. Ich danke dem Autor für die Überlassung vieler Bilder.
- [Wit77] E. Witten. Anomalous Cross Section for Photon-Photon Scattering in Gauge Theories. Nucl. Phys. **B120**:189, 1977.
- [Wol83] L. Wolfenstein. Parametrization of the Kobayashi Maskawa Matrix. Phys. Rev. Lett. **51**:1945, 1983.