

References

- [Ab96] K. Abe *et al.* Phys. Rev. Lett. **76**, 587 (1996).
- [Ab97] K. Abe *et al.* [SLAC E154], Phys. Rev. Lett. **79**, 26 (1997).
- [Ab98] A. Abele *et al.*, Phys. Lett. **B423**, 175, (1998).
- [Ab98] D. Abbott *et al.*, Phys. Rev. Lett. **80**, 5072 (1998).
- [Ab98b] K. Abe *et al.* [SLAC E143], Phys. Rev. D **58**, 112003 (1998).
- [Ab99] H. Abramowicz and A. Caldwell, Rev. Mod. Phys. **71**, 1275 (1999).
- [Ab99a] K. Abe *et al.* [SLAC E155], Phys. Lett. **B463**, 339 (1999).
- [Ac98] K. Ackerstaff *et al.* [HERMES Collaboration], Phys. Rev. Lett. **81**, 5519 (1998).
- [Ac98a] M. Acciarri *et al.*, Phys. Lett. **B418**, 399 (1998).
- [Ac99] K. Ackerstaff *et al.* [HERMES Collaboration], Phys. Rev. Lett. **82**, 3025 (1999).
- [Ac00] K. Ackerstaff *et al.*, hep-ex/0002016 (2000).
- [Ad93] B. Adeva *et al.*, Phys. Lett. **B302**, 533 (1993); D. Adams *et al.*, Phys. Lett. **B329**, 399 (1994); B. Adeva *et al.*, Phys. Lett. **B357**, 248 (1995).
- [Ad94] G. Adams, Workshop on CEBAF at Higher Energies, N. Isgur and P. Stoler, eds, CEBAF (1994), p. 65.
- [Ad94a] D. Adams *et al.* [SMC Collaboration], Phys. Lett. **B329**, 399 (1994).
- [Ad95] M. R. Adams *et al.* [E665 Collaboration], Phys. Rev. Lett. **74**, 1525 (1995).
- [Ad96] J. Adomeit *et al.* [Crystal Barrel Collaboration], Z. Phys. **C71**, 227 (1996).
- [Ad98] G. S. Adams *et al.*, Phys. Rev. Lett. **81**, 5760 (1998).
- [Af00] A. Afanasev, C. E. Carlson, and C. Wahlquist, Phys. Rev. D **62**, 074011 (2000).
- [Af00a] A. Afanasev, C. E. Carlson, and C. Wahlquist, Phys. Rev. D **61**, 034014 (2000).
- [Af00b] I. R. Afnan *et al.*, Phys. Lett. B **493**, 36 (2000).
- [Af94] A. Afanasev, J. Gomez and S. Nanda, Workshop on CEBAF at Higher Energies, *op. cit.*, p. 184.

- [Af98] A. Afanasev and P. R. Page, Phys. Rev. D **57**, 6771 (1998).
- [Ak85] S. V. Akulinichev, S.A. Kulagin and G.M. Vagradov, Phys. Lett. **B158**, 485 (1985)
- [Al76] M. J. Alguard *et al.* [SLAC E80], Phys. Rev. Lett. **37**, 1261 (1976); **41**, 70 (1978).
- [Al90] D. M. Alde *et al.*, Phys. Rev. Lett. **64**, 2479 (1990).
- [Al98] M. Alford, K. Rajagopal and F. Wilczek, Phys. Lett. **B422**, 247 (1998).
- [Al99] L. C. Alexa *et al.*, Phys. Rev. Lett. **82**, 1374 (1999); and references therein.
- [Al00] S. I. Alekhin and A. L. Kataev, Nucl. Phys. **A666-667**, 179 (2000); and references therein.
- [Am94] A. Amroun *et al.*, Nucl. Phys. **A579**, 596 (1994); and references therein.
- [Am95] C. Amsler and F. E. Close, Phys. Lett. **B353**, 385 (1995).
- [Am96] C. Amsler and F. E. Close, Phys. Rev. D **53**, 295 (1996).
- [Am98] M. Ambrogiani *et al.*, Nucl. Phys. B **61**, 384 (1998).
- [An71] R. L. Anderson *et al.*, Phys. Rev. **D4**, 3245 (1971).
- [An77] R. Anderson *et al.*, SLAC-PUB-1741, *Invited talk presented at Int. Conf. on Production of Particles with New Quantum Numbers, Wisconsin U., Madison, Apr. 22-24, 1976.*
- [An77b] R. L. Anderson *et al.*, Phys. Rev. Lett. **38**, 263 (1977).
- [An93] P. L. Anthony *et al.* [SLAC E142], Phys. Rev. Lett. **71**, 959 (1993).
- [An95] V. V. Anisovich *et al.*, Phys. Lett. **B323**, 233 (1994).
- [An96] A. Antonelli *et al.*, Nucl. Inst. and Meth. A **370**, 367 (1996).
- [An96a] M. Anghinolfi *et al.*, Nucl. Phys. **A602**, 405 (1996).
- [Ar75] X. Artru *et al.*, Phys. Rev. D **12**, 1289 (1975).
- [Ar97] R. Arnold and J. McCarthy, *A Proposal for Extension of E155 to Measure the Transverse Spin Structure Functions of the Proton and Deuteron*, SLAC E155x, September 1997.
- [Ar99] J. Arrington *et al.*, Phys. Rev. Lett. **82**, 205 (1999).
- [Ar00] C. S. Armstrong *et al.*, submitted to Phys. Rev. D (2000).

- [As87] D. Aston *et al.*, *The LASS spectrometer*, Technical report, 1987, SLAC-Report-298.
- [As88] J. Ashman *et al.* [EMC Collaboration], *Phys. Lett.* **B206**, 364 (1988).
- [As89] J. Ashman *et al.* [EMC Collaboration], *Nucl. Phys.* **B328**, 1 (1989)
- [As89a] D. Aston *et al.*, SLAC-PUB-5145; *Nucl. Phys. (Proc. Suppl.)* **B8**, 32 (1989).
- [As99] D. Ashery [E791 Collaboration], *Proceedings of the Int. Workshop on Physics with Electron Polarized Ion Colliders*, Bloomington, 1999, p. 322.
- [Au83] J. J. Aubert *et al.* [EMC Collaboration], *Phys. Lett.* **B123**, 275 (1983).
- [Av00] T. Averett, *Proceedings of the HiX2000 workshop*, J.P. Chen and Z.E. Meziani, eds.
- [Ba77] Exotic hybrids were apparently first described in a bag model context by T. Barnes, Ph.D. thesis, California Institute of Technology, 1977 (unpublished).
- [Ba82] “The Role of Electromagnetic Interactions in Nuclear Science”, a report of the DOE/NSF Nuclear Science Advisory Committee (1982).
- [Ba83] G. Baum *et al.*, [SLAC E130] *Phys. Rev. Lett.* **51**, 1135 (1983).
- [Ba93] G. S. Bali *et al.*, *Phys. Lett. B* **309**, 378 (1993).
- [Ba95] T. Barnes, F. E. Close, and E. S. Swanson, *Phys. Rev. D* **52**, 5242 (1995).
- [Ba96] B. Baumbaugh *et al.*, *IEEE Trans. Nucl. Sci.* **43**, 1146, (1996).
- [Ba97] G. Bali *et al.* [SESAM Collaboration], *Nucl. Phys. Proc. Suppl.* **63**, 209 (1997).
- [Ba00] G. S. Bali *et al.* [SESAM/TCL Collaboration], *Phys. Rev. D* **62**, 054503 (2000).
- [Be67] H. A. Bethe, *Ann. Rev. Nucl. Sci.* **21**, 93 (1971).
- [Be69] J. S. Bell and R. Jaciw, *Nuovo Cimento* **60A**, 47 (1969); S. L. Adler, *Phys. Rev.* **177**, 2426 (1969).
- [Be75] C. J. Bebek *et al.*, *Phys. Rev. Lett.* **34**, 759 (1975); *Phys. Rev. Lett.* **37**, 1525 (1976); *Phys. Rev. D* **15**, 3085 (1977).
- [Be78] C. J. Bebek *et al.*, *Phys. Rev. D* **13**, 1693 (1978).
- [Be82] B. Bengston and M. Moszynski, *Nuclear Inst. and Meth.* **204**, 129, (1982).

- [Be84] E. L. Berger, F. Coester, and R. B. Wiringa, Phys. Rev. D **29**, 398 (1984).
- [Be89] D. Beck *et al.*, Nucl. Instr. Methods in Phys. Res. **A277**, 323 (1989).
- [Be91] H. J. Behrend *et al.*, Z. Phys. **C49**, 401 (1991).
- [Be95] V. M. Belyaev and A. Radyushkin, Phys. Lett. **B359**, 194 (1995).
- [Be96] O. Benhar, S. Fantoni, N. N. Nikolaev, J. Speth, A. A. Usmani and B. G. Zakharov, J. Exp. Theor. Phys. **83**, 1063 (1996);
- [Be97] C. Bernard *et al.* [MILC Collaboration], Phys. Rev. D **56**, 7039 (1997).
- [Be99] H. A. Bethe, Rev. Mod. Phys. **71**, S6 (1999).
- [Be00] O. Benhar, N. N. Nikolaev, J. Speth, A. A. Usmani and B. G. Zakharov, Nucl. Phys. **A673**, 241 (2000).
- [Bi88] J. Bijnens, A. Bramon and F. Cornet, Phys. Rev. Lett. **61**, 1453 (1988).
- [Bi89] R. P. Bickerstaff and A. W. Thomas, J. Phys. G **15**, 1523 (1989).
- [Bi95] A. Bianconi, S. Jeschonnek, N. N. Nikolaev, and B. G. Zakharov, Phys.Lett.**B343** (1995), 13.
- [Bi96] A. Bianconi, S. Jeschonnek, N. N. Nikolaev, and B. G. Zakharov, Nucl.Phys. **A608** (1996), 437.
- [Bi96a] A. Bianconi, S. Jeschonnek, N. N. Nikolaev, and B. G. Zakharov, Phys. Rev. C **53** (1996), 576.
- [Bl69] E. D. Bloom *et al.*, Phys. Rev. Lett. **23**, 930 (1969), and M. Briedenbach *et al.*, Phys. Rev. Lett. **23** 935 (1969)
- [Bl70] E. D. Bloom and F. J. Gilman, Phys. Rev. Lett. **25**, 1140 (1970); Phys. Rev. D **4**, 2901 (1971).
- [BNL98] Y. Mardor *et al.*, Phys. Rev. Lett. **81**, 5085 (1998).
- [BNL00] A. Leksanov *et al.* [E850 Collaboration], Proc. of 7th. Conf. CIPANP2000, Quebec, p. 306.
- [Bo81] A. Bodek and J. L. Ritchie, Phys. Rev. D **23**, 1070 (1981).

- [Bo83] A. Bodek *et al.*, Phys. Rev. Lett. **50**, 1431 (1983).
- [Bo98] C. Bochna *et al.* [E89-012 Collaboration], Phys. Rev. Lett. **81**, 4576 (1998)
- [Bo00] P. Bosted, “Spin Structure Functions of the Nucleon Measured at SLAC”, *Circum-Pan-Pacific RIKEN Symposium on High Energy Spin Physics* (Wako, Japan, November 1999), RIKEN Review 28 (May, 2000) (No. 13); P. Bosted, private communication.
- [Br73] S. J. Brodsky and G. R. Farrar, Phys. Rev. Lett. **31**, 1153 (1973); V. A. Matveev, R. M. Muradyan and A. N. Tavkhelidze, Lett. Nuovo Cimento **7**, 719 (1973).
- [Br79] E. L. Berger and S. J. Brodsky, Phys. Rev. Lett. **42** (1979) 940.
- [Br79a] S. J. Brodsky and G. P. Lepage, Phys. Lett. **B87**, 359 (1979).
- [Br80] S. J. Brodsky and G. P. Lepage, Phys. Rev. D **22**, 2157 (1980).
- [Br80a] K. L. Brown, “TRANSPORT, A computer program for designing charged particle beam transport systems”, CERN 80-04, Geneva, 1980.
- [Br82] S. J. Brodsky, in *Proceedings of the Thirteenth Int'l Symposium on Multiparticle Dynamics*, ed. W. Kittel, W. Metzger and A. Stergiou (World Scientific, Singapore, 1982) 963.
- [Br83] S. J. Brodsky, C. Ji and G. P. Lepage, Phys. Rev. Lett. **51** (1983) 83.
- [Br90] S. J. Brodsky, G. F. de Teramond and I. A. Schmidt, Phys. Rev. Lett. **64** (1990) 1924.
- [Br92] S. J. Brodsky *et al.*, Nucl. Phys. **B369** (1992) 519.
- [Br97] S. J. Brodsky and G. A. Miller, Phys. Lett. **B412**, 125 (1997).
- [Br99] S. J. Brodsky, M. Diehl, P. Hoyer, and S. Peigne, Phys. Lett. **B449**, 306 (1999); A. Afanasev, C. E. Carlson, and C. Wahlquist, Phys. Rev. D **58**, 054007 (1998) and Phys. Lett. **B398**, 393 (1997); C. E. Carlson and A. B. Wakely, Phys. Rev. D **48**, 2000 (1993).
- [Br01] S. J. Brodsky, E. Chudakov, P. Hoyer and J.-M. Laget, Phys. Lett. **B498**, 23 (2001).
- [Br00a] V. M. Braun, A. Khodjamirian, M. Maul, Phys. Rev. D **61**, 073004 (2000).
- [Bu98] V. Burkert, “Physics with CLAS at Energies up to 12GeV”, in *Physics & Instrumentation with 6-12 GeV Beams*, a Thomas Jefferson National Accelerator Facility report, S. Dytman, H. Fenker and P. Roos, eds., June 1998, p. 407.

- [Bu98a] V. Burkert, “Electromagnetic Calorimeter Upgrade Possibilities for CLAS”, in *Physics & Instrumentation with 6-12 GeV Beams* (ibid.) p. 425.
- [Ca75] U. Camerini *et al.*, Phys. Rev. Lett. **35** 483 (1975).
- [Ca75a] R. Carlitz, Phys. Lett. **B58**, 345 (1975).
- [Ca83] C. E. Carlson and T. J. Havens, Phys. Rev. Lett. **51**, 261 (1983).
- [Ca88] A. S. Carroll *et al.*, Phys. Rev. Lett. **61**,1698 (1988).
- [Ca90] C. E. Carlson and N. C. Mukhopadhyay, Phys. Rev. D **41**, 2343 (1990).
- [Ca91] C. E. Carlson, K. E. Lassila, and U. P. Sukhatme, Phys. Lett. **B263**, 377 (1991).
- [Ca91a] C. E. Carlson and N. C. Mukhopadhyay, Phys. Rev. Lett. **67**, 3745 (1991).
- [Ca95] C. E. Carlson and K. E. Lassila, Phys. Rev. C **51**, 364 (1995).
- [Ca95a] C. E. Carlson and N. C. Mukhopadhyay, Phys. Rev. Lett. **74**, 1288 (1995).
- [Ca97] C. E. Carlson, J. R. Hiller, R. J. Holt, Ann. Rev. Nucl. and Part. Sci. **47**, 395 (1997); and references therein.
- [Ca00] D. Cassel, F. Close, J. Domingo, W. Dunwoodie, D. Geesaman, D. Hitlin, M. Olson and G. Young, *Review of the Jefferson Laboratory “Hall D Project”*, January 2000, (http://www.phys.cmu.edu/halld/halld_notes/Note_024/).
- [Ca00a] G. W. Carter and D. Diakonov, Nucl. Phys. B **582**, 571 (2000).
- [Ch77] V. L. Chernyak and A. R. Zhitnitsky, JETP Lett. **25**, 510 (1977); V. L. Chernyak, A. R. Zhitnitsky and V. G. Serbo, JETP Lett. **26**, 594 (1977).
- [Ch78] B. T. Chertok, Phys. Rev. Lett. **40**, 1429 (1978); S. J. Brodsky and B. T. Chertok, Phys. Rev. **D14**, 3003 (1976).
- [Ch96] E. Chen, M. Saulnier, W. Sun, and H. Yamamoto, *Tests of a high resolution time-of-flight system based on long and narrow scintillator*, hep-ex/9606007, (1996).
- [Ch99] E. Christova and E. Leader, Phys. Lett. **B468**, 299 (1999).
- [Ch01] E. Chudakov *et al.*, Letter of Intent for CEBAF12, JLab technical note: JLAB-TN-01-007, January 2001.

- [Chpc] E. Chudakov, private communication
- [Ca98] J. Carlson and R. Schiavilla, *Rev. Mod. Phys.* **70**, 743 (1998); and references therein.
- [Ci89] C. Ciofi degli Atti and S. Liuti, *Phys. Lett.* **B225**, 215 (1989).
- [Ci90] C. Ciofi degli Atti and S. Liuti, *Phys. Rev. C* **41**, 1100 (1990).
- [Ci93] C. Ciofi degli Atti and S. Simula, *Phys. Lett.* **B319**, 23 (1993).
- [Ci93a] C. Ciofi degli Atti, S. Scopetta, E. Pace, and G. Salme, *Phys. Rev. C* **48**, 968 (1993).
- [Cl73] F. E. Close, *Phys. Lett.* **B43**, 422 (1973); *Nucl. Phys.* **B80**, 269 (1974).
- [Cl79] F. E. Close, *An Introduction to Quarks and Partons* (Academic Press, 1979).
- [Cl83] F. E. Close, R. G. Roberts, and G. G. Ross, *Phys. Lett.* **B129**, 346 (1983).
- [Cl88] F. E. Close and A. W. Thomas, *Phys. Lett.* **B212**, 227 (1988).
- [Cl95] F. E. Close and P. Page, *Nucl. Phys.* **B443**, 233 (1995).
- [Cl95a] F. E. Close, private communication, advocates using the *positive* term “strong QCD” instead of the negative “nonperturbative QCD”.
- [Cl00] F. E. Close and A. Kirk, *Phys. Lett. B* **483**, 345 (2000).
- [Cl00a] Proposal for CLAS Upgrade at High Energies.
- [Co97] J. C. Collins, L. Frankfurt, and M. Strikman, *Phys. Rev. D* **56**, 2982 (1997).
- [Co98] C. Coriano, H-N. Li, and C. Savkli, *J. High En. Phys.* 9807, 008 (1998).
- [Cr97] J. A. Crittenden [ZEUS Collaboration], presented at Photon '97, May 1997.
- [Cr98] R. R. Crittenden *et al.*, *Nuclear Inst. and Meth.* **387**, 377 (1998).
- [Da94] S. Dasu *et al.*, *Phys. Rev. D* **49**, 5641 (1994).
- [De00] D. Debruyne, J. Ryckebusch, W. Van Nespén, and S. Janssen, *Phys. Rev. C* **62**, 024611 (2000).
- [Di88] M. Diemoz *et al.*, *Z. Phys.* **C39**, 21 (1988).
- [Di89] H. Dijk and B. L. G. Bakker, *Nucl. Phys.* **A494**, 438 (1989); Z-J. Cao and L. Kisslinger, *Phys. Rev. C* **41**, 647 (1990), and references therein.

- [Do97] J. F. Donoghue and E. S. Na, Phys. Rev. D **56**, 7073 (1997).
- [Du85] G. V. Dunne and A. W. Thomas, Nucl. Phys. **A446**, 437c (1985).
- [Du91] M. Dueren and K. Rith, *Polarized Electron Nucleon Scattering at HERA: The HERMES Experiment*, in “Hamburg 1991, Proceedings, Physics at HERA, vol. 1” 427-445.
- [Ef80] A. V. Efremov and A. V. Radyushkin, Theor. Math. Phys. **42**, 97 (1980).
- [Eg94] K. S. Egiyan, L. L. Frankfurt, W. R. Greenberg, G. A. Miller, M. M. Sargsyan, M. I. Strikman, Nucl. Phys. **A580**, 365 (1994).
- [Ei84] E. Eichten, I. Hinchliffe, K. Lane and C. Quigg, Rev. Mod. Phys. **56**, 579 (1984).
- [Ei99] M. Eides, L. Frankfurt, and M. Strikman, Phys. Rev. D **59**, 114025 (1999).
- [En00] R. Ent, C. E. Keppel, and I. Niculescu, Phys. Rev. D. **62**, 73008 (2000).
- [En00a] R. Ent, H. Mkrtychyan, and G. Niculescu, JLAB Proposal E00-004 (2000).
- [Er83] M. Erikson and A. W. Thomas, Phys. Lett. **B128**, 112 (1983).
- [Fa75] G. R. Farrar and D. R. Jackson, Phys. Rev. Lett. **35**, 1416 (1975).
- [Fa79] G. R. Farrar and D. R. Jackson, Phys. Rev. Lett. **43**, 246 (1979); and D. R. Jackson, Thesis, CALTECH, 1977 (unpublished);
- [Fe72] R. P. Feynman, *Photon Hadron Interactions* (Benjamin, Reading, Massachusetts, 1972).
- [Fo96] J. L. Forest, V. R. Pandharipande, S. C. Pieper, R. B. Wiringa, and R. Schiavilla, Phys. Rev. C **54**, 646 (1996).
- [Fr81] L. L. Frankfurt and M. I. Strikman, Phys. Rep. **76**, 215 (1981).
- [Fr83] B. L. Friman, V. R. Pandharipande, and R. B. Wiringa, Phys. Rev. Lett. **51**, 763 (1983)
- [Fr85] L. L. Frankfurt and M. I. Strikman, Nucl. Phys. **B250**, 1585 (1985).
- [Fr88] L. L. Frankfurt and M. I. Strikman, Phys. Rep. **160**, 235 (1988).
- [Fr90] J. L. Friar *et al.*, Phys. Rev. C **42**, 2310 (1990).
- [Fr92] L. L. Frankfurt, G. A. Miller and M. I. Strikman, Phys. Rev. Lett. **68**, 17 (1992).
- [Fr92a] L. L. Frankfurt, G. A. Miller, and M. I. Strikman, Comm. Nucl. Part. Phys. **21**, 1 (1992).

- [Fr93] L. L. Frankfurt, G. A. Miller and M. Strikman, Phys. Lett. **B304**, 1 (1993)
- [Fr93a] L. L. Frankfurt, D. B. Day, M. M. Sargsian and M. I. Strikman, Phys. Rev. C **48**, 2451 (1993).
- [Fr94] L. L. Frankfurt *et al.*, in Workshop on ‘CEBAF at Higher Energies’, Eds. N. Isgur and P. Stoler, Conf. Proc. p. 499 (1994).
- [Fr94a] B. Frois and P. J. Mulders, Workshop on CEBAF at Higher Energies, Thomas Jefferson National Accelerator Facility, Eds. N. Isgur, P. Stoler, p. 309 (1994).
- [Fr95] L. L. Frankfurt, E. J. Moniz, M. M. Sargsyan, M. I. Strikman, Phys. Rev. C **51**, 3435 (1995).
- [Fr95b] L. L. Frankfurt, W. R. Greenberg, G. A. Miller, M. M. Sargsian and M. I. Strikman, Z. Phys. **A352**, 97 (1995).
- [Fr96] M. R. Frank, B. K. Jennings and G. A. Miller, Phys. Rev. C **54**, 920 (1996); B. K. Jennings and G. A. Miller, Phys. Lett. **B318**, 7 (1993).
- [Fr97] L. L. Frankfurt, M. M. Sargsian and M. I. Strikman, Phys. Rev. C **56**, 1124 (1997)
- [Fr98] L. Frankfurt, G. Piller, M. Sargsian, and M. Strikman, Eur. Phys. J. **A2**, 301 (1998).
- [Fr98a] V. V. Frolov *et al.*, Phys. Rev. Lett. **82**, 45 (1998).
- [Fr00] L. L. Frankfurt, G. A. Miller, M. M. Sargsian and M. I. Strikman, Phys. Rev. Lett. **84**, 3045 (2000)
- [Ge92] C. Gerschel and J. Hufner, Z. Phys. **C56** (1992) 171.
- [Ge93] P. Geiger and N. Isgur, Phys. Rev. D **47**, 5050 (1993); D **44**, 799 (1991).
- [Ge95] D. F. Geesaman, K. Saito and A. W. Thomas, Ann. Rev. Nucl. and Part. Sci. **45**, 337 (1995).
- [Gi46] V. L. Ginzburg and I. M. Frank, JETP **16**, 15 (1946).
- [Gi75] B. Gittelman *et al.*, Phys. Rev. Lett. **35**, 1616 (1975).
- [Gi00] R. Gilman, Proceedings of the HiX2000 workshop, J.P. Chen and Z.E. Meziani, eds (ibid); P. Mulders, ibid; H. Gao, private communication
- [Gl98] M. Glück, E. Reya, and A. Vogt, Eur. Phys. J. **C5**, 461 (1998).

- [Go69] K. Gottfried and D. R. Yennie, *Phys. Rev.* **182** (1969) 1595.
- [Go94] J. Gomez *et al.*, *Phys. Rev. D* **49**, 4348 (1994).
- [Gr75] L. V. Gribov and L. Lipatov, *Yad. Fiz.* **20**, 181 (1975); G. Altarelli and G. Parisi, *Nucl. Phys.* **B126**, 298 (1977); Dokshitzer, *Sov. Phys. JETP* **46**, 641 (1977).
- [Gr94] W. R. Greenberg and G. A. Miller, *Phys. Rev. C* **49**, 2747 (1994).
- [Gr98] J. Gronberg *et al.* [CLEO Collaboration], *Phys. Rev. D* **57**, 33 (1998).
- [Gupc] M. Guidal “*Computer Code for DVCS and BH calculations*”, private communication.
- [Ha98] E. A. Hawker *et al.*, *Phys. Rev. Lett.* **80**, 3715 (1998).
- [HD99] The Hall D Collaboration, *Photoproduction of Unusual Mesons: The Hall D Project at Jefferson Lab*, Design Report version 2, August 1999, (<http://www.phys.cmu.edu/halld/cdr/>).
- [He90] D. W. Hertzog *et al.*, *Nucl. Inst. and Meth.*, **A294**, 446 (1990).
- [Ho55] R. Hofstadter and R. W. McAllister, *Phys. Rev.* **98**, 183 (1955).
- [Ho97] P. Hoyer, *Nucl. Phys.* **A622**, 284c (1997).
- [Hu90] E. Hummel and J. A. Tjon, *Phys. Rev. Lett.* **63**, 1788 (1989); *Phys. Rev. C* **42**, 423 (1990); J. W. Van Orden, N. Devine and F. Gross, *Phys. Rev. Lett.* **75**, 4369 (1995); D. R. Phillips, S. J. Wallace and N. K. Devine, *Phys. Rev. C* **58**, 2261 (1998); F. M. Lev, E. Pace and G. Salme, *Phys. Rev. C* **62**, 064004 (2000).
- [Hu98] J. Hufner and B. Kopelovich, *Phys. Lett.* **B426**, 154 (1998).
- [In84] T. Inagaki *et al.*, *Cryogenics* **24**, 83 (1984).
- [Is81] N. Isgur, G. Karl, and D. W. L. Sprung, *Phys. Rev. D* **23**, 163 (1981).
- [Is84] N. Isgur and C. H. Llewellyn Smith, *Phys. Rev. Lett.* **52**, 1080 (1984); *Phys. Lett.* **B217**, 535 (1989); G. R. Farrar, K. Huleihel and H. Zhang, *Phys. Rev. Lett.* **74**, 650 (1995).
- [Is85] N. Isgur, and J. Paton, *Phys. Rev. D* **31**, 2910 (1985); N. Isgur, R. Kokoski and J. Paton, *Phys. Rev. Lett.* **54**, 869 (1985).
- [Is91] N. Isgur and M. B. Wise, *Phys. Rev. D* **43**, 819 (1991).

- [Is99] N. Isgur, Phys. Rev. D **59**, 034013 (1999).
- [Is99b] N. Isgur, Phys. Rev. D **60**, 114016 (1999).
- [It92] H. Ito, W. W. Buck, and F. Gross, Phys. Lett. **287B**, 23 (1992).
- [It97] H. Ito, S. E. Koonin and R. Seki, *Phys. Rev. C* **56**, 3231 (1997).
- [Ja84] R. L. Jaffe, F. E. Close, R. G. Roberts, and G. G. Ross, Phys. Lett. **B134**, 449 (1984).
- [Ja90] O. C. Jacob and L. S. Kisslinger, Phys. Lett. **243B**, 323 (1990).
- [Ja93] R. Jakob and P. Kroll, Phys. Lett. **315B**, 463 (1993).
- [Je99] S. Jeschonnek and T. W. Donnelly, Phys. Rev. C **59** (1999), 2676.
- [Je00] S. Jeschonnek, N. Isgur, W. Melnitchouk, and J. W. Van Orden, to be submitted to Phys. Rev.
- [Ji95a] X. Ji and P. Unrau, Phys. Rev. D **52**, 72 (1995).
- [Ji97] X. Ji, Phys. Rev. Lett. **78**, 610 (1997); Phys. Rev. D **55**, 7114 (1997).
- [JL99] JLab Experiment E94-139, preliminary results.
- [Jo00] M. K. Jones *et al.*, Phys. Rev. Lett. **84**, 1398 (2000).
- [Ju88] H. Jung and G. A. Miller, Phys. Lett. **B200**, 351 (1988).
- [Ju97] K. Juge, J. Kuti, and C. J. Morningstar, Nucl. Phys. Proc. Suppl. **63**, 326, (1997).
- [Ka75] W. Kaune, G. Miller, W. Oliver, R. W. Williams, and K. K. Young, Phys. Rev. D **11**, 478 (1975).
- [Ka90] L. P. Kaptari *et al.*, Nucl. Phys. **A512**, 684 (1990).
- [Ko97] N. I. Kochelev, *Proc. of Workshop on Physics with Polarized Protons at HERA*, 1997, Hamburg, p. 225, hep-ph/9711274.
- [Kopc] N. Kochelev, private communication.
- [Kr99] D. Kharzeev, Eur. Phys. J. **C9**, 459 (1999).
- [Ku89] S. A. Kulagin, Nucl. Phys. **A500**, 653 (1989).
- [Ku94] S. A. Kulagin, G. Piller, and W. Weise, Phys. Rev. C **50**, 1154 (1994).

- [Ku00] S. Kuhlmann *et al.*, Phys. Lett. **B476**, 291 (2000).
- [La72] J.-M. Laget, Nucl. Phys. **A194**, 81 (1972).
- [La91] J.-M. Laget, in *Modern Topics in Electron Scattering*, edited by B. Frois and I. Sick (World Scientific, 1991) 290, and references therein.
- [La94] J.-M. Laget and R. Mendez-Galain, Nucl. Phys. **A581**, 397 (1995).
- [La94a] J.-M. Laget, Nucl.Phys. **579** (1994) 333.
- [La95] H. L. Lai *et al.* [CTEQ Collaboration], Phys. Rev. D **51**, 4763 (1995); H. L. Lai *et al.*, Eur. Phys. J. **C12**, 375 (2000).
- [La97] P. Lacock *et al.* [UKQCD Collaboration], Phys. Lett. **B401**, 308, (1997).
- [La98] J.-M. Laget, in *Proceedings of workshop on Jefferson Lab Physics & Instrumentations with 12 GeV Beams*, Newport News, 1998, p. 57.
- [La98a] B. Lampe and E. Reya, hep-ph/9810270; S. D. Bass and A. W. Thomas, Prog. Part. Nucl. Phys. **33**, 449 (1994).
- [Li00] S. Liuti, R. Ent, C. E. Keppel, and I. Niculescu, to be submitted to Phys. Rev. D.
- [Lu81] M. Luscher, Nucl. Phys. **B180**, 317 (1981).
- [Lu92] M. Luke, A. V. Manohar and M. J. Savage, Phys. Lett. **B288**, 355 (1992).
- [Ma91] A. V. Manohar, Phys. Rev. Lett. **66**, 289 (1991).
- [Ma94] N. C. R. Makins *et al.*, Phys. Rev. Lett. **72**, 1986 (1994).
- [Ma94a] A. D. Martin, R. Roberts and W. J. Stirling, Phys. Rev. D **50**, 6734 (1994).
- [Ma98] A. D. Martin, R. G. Roberts, W. J. Stirling and R. S. Thorne, Eur. Phys. J. **C4**, 463 (1998).
- [Ma00] P. Maris and P. C. Tandy, Phys. Rev. C **62**, 055204 (2000).
- [Me93] W. Melnitchouk and A. W. Thomas, Phys. Rev. D **47**, 3783 (1993).
- [Me94] W. Melnitchouk, A. W. Schreiber, and A. W. Thomas, Phys. Rev. D **49**, 1183 (1994).
- [Me96] W. Melnitchouk and A. W. Thomas, Phys. Lett. **B377**, 11 (1996).

- [Me97] W. Melnitchouk, M. Sargsian, and M. I. Strikman, *Z. Phys.* **A359**, 359 (1997).
- [Me00] Z.-E. Meziani, *Proceedings of the HiX2000 Workshop*, J.P. Chen and Z.-E. Meziani, eds.
- [Mi00] J. Mitchell, *Proceedings of the HiX2000 Workshop*, J.-P. Chen and Z.-E. Meziani, eds.
- [Mkpc] H. Mkrtchyan *et al.*, JLab test run results, 1999 (private communication).
- [ML00] *Assessment of the MEGA/LASS Magnet at LANL, 20 March, 2000*, (http://www.phys.cmu.edu/halld/halld_notes/Note_026/).
- [Mo70] M. Morpurgo *et al.*, *Particle Accelerators* **1**, 255 (1970).
- [Mo79] M. Moszynski and B. Bengston, *Nucl. Inst. and Meth.*, **158**, 1 (1979).
- [Mo79a] M. Morpurgo *et al.*, *Cryogenics* **19**, 411 (1979).
- [Mo95] B. Moussallam, *Phys. Rev. D* **51**, 4939 (1995).
- [Mo97] C. J. Morningstar and M. Peardon, *Phys. Rev. D* **56**, 4043 (1997).
- [Mo99] H. Morita, C. Ciofi degli Atti, and D. Treleani, *Phys. Rev. C* **60**, 034603 (1999).
- [Mopc] M. Morlet and J. Van de Wiele, private communication.
- [Mu83] A. H. Mueller, in *Proceedings of the Seventeenth Rencontre de Moriond Conference on Elementary Particle Physics*, Les Arcs, France, 1982, edited by J. Tran Thanh Van (Editions Frontieres, Gif-sur-Yvette, France, 1982); S. J. Brodsky, in *Proceedings of the Thirteenth International Symposium on Multiparticle Dynamics*, Volendam, The Netherlands, 1982, edited by W. Kittel *et al.* (World Scientific, Singapore, 1983).
- [Mu82] A. H. Mueller, in *Proceedings of the Seventeenth Rencontres de Moriond*, ed. J. Tran Thanh Van (Editions Frontieres, Gif-sur-Yvette, France, 1982) **Vol. I** 13.
- [Mu95] C. R. Munz *et al.*, *Phys. Rev. C* **52**, 2110 (1995).
- [Na70] Y. Nambu, Univ. of Chicago Report No. 70-70 (1970) (unpublished); lectures at the Copenhagen Summer Symposium (1970) (unpublished).
- [Na84] O. Nachtmann and H. J. Pirner, *Z. Phys.* **C21**, 277 (1984).
- [NA99] *Nuclear Physics: The Core of Matter, The Fuel of Stars*, The Committee on Nuclear Physics of the Board on Physics and Astronomy of the Commission on Physical Sciences, Mathematics, and Applications of the National Research Council, National Academy Press, Washington, D.C. (1999).

- [Ne77] R. Nieman *et al.*, IEEE Trans. on Magn., **13**, 632 (1977).
- [Ne95] T. G. O'Neill *et al.*, Phys. Lett. **B351**, 87 (1995).
- [Ni00] I. Niculescu *et al.*, Phys. Rev. Lett. **85**, 1186 (2000).
- [Ni00a] I. Niculescu *et al.*, Phys. Rev. Lett. **85**, 1182 (2000).
- [Ni94] N. N. Nikolaev, A. Szczurek, J. Speth, J. Wambach, B. G. Zakharov and V. R. Zoller, Phys. Rev. C **50**, 1296 (1994).
- [Ni99] I. Niculescu, C. Keppel, S. Liuti, and G. Niculescu, Phys. Rev. D **60**, 094001 (1999).
- [NS96] "Nuclear Science: A Long Range Plan", a report by the DOE/NSF Nuclear Science Advisory Committee, February, 1996.
- [Pa97] V. R. Pandharipande, I. Sick, and P. K. A. deWitt Huberts, Rev. Mod. Phys. **69**, 981 (1997).
- [Pa00] E. Pace, G. Salme and S. Scopetta, to appear in *Proceedings of the XVII-th European Few-Body Conference*, Evora, Portugal (2000).
- [Pe89] M. D. Petroff and M. Atac, IEEE Trans. Nucl. Sci. **NS-36**, 163 (1989).
- [Pe00] G. Petratos, *Proceedings of the HiX2000 Workshop*, J.-P. Chen and Z.-E. Meziani, eds.
- [Po99] M. V. Polyakov and C. Weiss, Phys. Rev. D **60**, 114017 (1999).
- [Ra77] A. V. Radyushkin, JINR report P2-10717, Dubna, 1977 (unpublished).
- [Ra96] A. V. Radyushkin, Phys. Lett. **B380**, 417 (1996); Phys. Lett. **B385**, 333 (1996); Phys. Rev. D **56**, 5524 (1997).
- [Ra98] R. Rapp, T. Schafer, E. V. Shuryak and M. Velkovsky, Phys. Rev. Lett. **81**, 53 (1998)
- [Ra98a] A. V. Radyushkin, Phys. Rev. D **58**, 114008 (1998).
- [Ra99] A. V. Radyushkin, Phys.Rev.D **59**, 014030 (1999).
- [Ri98] G. Ricco *et al.*, Phys. Rev. C **57**, 356 (1998).
- [Ru75] A. de Rújula, H. Georgi and H.D. Politzer, Ann. Phys. **103**, 315 (1975).
- [Sa69] J. J. Sakurai, Phys. Rev. Lett. **22**, 981 (1969).

- [Sc91] R. Schiavilla and D. O. Riska, Phys. Rev. C **43**, 437 (1991); R. Schiavilla, V. R. Pandharipande and D. O. Riska, Phys. Rev. C **41**, 309 (1990); and references therein.
- [Sc93] R. W. Schulze and P. U. Sauer, Phys. Rev. C **48**, 38 (1993).
- [Se95] J. Sexton *et al.* [IBM Collaboration], Phys. Rev. Lett. **75**, 4563 (1995).
- [Sl88] T. Sloan, G. Smadja, and R. Voss, Phys. Rep. **162**, 45 (1988).
- [So00] P. Souder, *Proceedings of the HiX2000 Workshop*, J.-P. Chen and Z.-E. Meziani, eds.
- [St93] P. Stoler, Phys. Rep. **226**, 103 (1993).
- [St95] E. Stein, P. Gornicki, L. Mankiewicz, and A. Schafer, Phys. Lett. **B353**, 107 (1995).
- [Ta96] L. Tao *et al.*, Z. Phys. C **70**, 387 (1996).
- [tH76] G. 't Hooft, Phys. Rev. Lett. **37**, 8 (1976); and Phys. Rev. D **14**, 3432 (1976).
- [Th84] A. W. Thomas, Adv. Nucl. Phys. **13**, 1 (1984).
- [Th97] D. R. Thompson *et al.*, Phys. Rev. Lett. **81**, 5760, (1997).
- [Ti92] P. C. Tiemeijer and J. A. Tjon, Phys. Lett. **277B**, 38 (1992).
- [TOSCA] 3-D Non-linear magnetostatics computer program, SCARPIA pre-processor and OPERA post-processor, Vector Fields, Oxford, U.K.
- [Uc88] T. Uchiyama and K. Saito, Phys. Rev. C **38**, 2245 (1988).
- [Va98] M. Vanderhaeghen, M. Guidal, J.-M. Laget, Phys. Rev. C **57**, 1454 (1998).
- [Va99] M. Vanderhaeghen, P. A. M. Guichon, and M. Guidal, Phys. Rev. D **60**, 094017 (1999).
- [Vapc] M. Vanderhaeghen, private communication. The calculations were done using the double distribution of Radyushkin [Ra99] with and without the D'' -term of Polyakov and Weiss [Po99].
- [Ve87] P. Vernin, RPAC (II), CEBAF, January 1987, p. 615.
- [Vi92] M. Virchaux and A. Milzstajn, Phys. Lett. **74B**, 221 (1992).
- [Vo88] M. B. Voloshin and M. A. Shifman, Sov. J. Nucl. Phys. **47**, 511 (1988); N. Isgur, Phys. Rev. D **40**, 101 (1989); Phys. Lett. **B448**, 111 (1999).

- [Vo00] J. Volmer *et al.*, nucl-ex/00/0009.
- [Wa77] S. Wandzura and F. Wilczek, Phys. Lett. **B72**, 195 (1977).
- [Wa80] S. T. Wang *et al.*, Adv. in Cryogenics Engineering **25**, 19 (1980).
- [Wa82] S. T. Wang *et al.*, Cryogenics **22**, 335 (1982).
- [Wa97] M. R. Wayne, Nucl. Inst. and Meth. **A386**, 278 (1997).
- [We71] G. B. West, Phys. Lett. **B37**, 509 (1971); W. B. Atwood and G. B. West, Phys. Rev. D **7**, 773 (1973).
- [We94] D. Weingarten, Nucl. Phys. **B34** (Proc Suppl.), 29 (1994).
- [We96] G. West, hep-ph/9612403.
- [Wh92] L. Whitlow *et al.*, Phys. Lett. **B282**, 475 (1992).
- [Wo81] R. C. Wolgast *et al.*, IEEE Trans. on Magn. **17**, 195 (1981).
- [Wo89] R. M. Woloshyn, Nucl. Phys. **A496**, 749 (1989).
- [Wopc] B. Wojtsekhowski and C. Hyde-Wright, private communication; K. Abe *et al.*, Phys. Lett. **B404**, 404 (1997); P. L. Anthony *et al.*, Phys. Lett. **B458**, 529 (1999).