

DEREK BRUCE LEINWEBER  
Publications

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## Publications Overview

- Editor of 5 refereed international conference proceedings.
- Published 4 refereed book chapters.
- Published 157 articles in refereed journals.
- Published 150 articles as refereed conference proceedings.
- Published 11 articles as conference proceedings.
- Published 16 newspaper articles.
- Currently 4 manuscripts are under review at refereed journals.
- Articles have 7,991 citations in the inSPIRE High Energy Physics information system.
- 34 articles are classified as *well-known* with 50–99 citations.
- 21 articles are *very well-known* with more than 100 citations.
- Hirsch's h-index is 53.

## Publications – Submitted to Refereed Journals

4. “**Light-quark contributions to the magnetic form factor of the Lambda(1405)’**  
J. M. M. Hall, W. Kamleh, D. B. Leinweber, B. J. Menadue, B. J. Owen and A. W. Thomas.  
arXiv:1612.07477 [hep-lat]  
ADP-16-49-T1005

3. “**Nucleon resonance structure in the finite volume of lattice QCD**”  
 J. J. Wu, H. Kamano, T.-S. H. Lee, D. B. Leinweber and A. W. Thomas.  
 arXiv:1611.05970 [hep-lat]  
 ADP-16-43-T999, KEK-TH-1947, J-PARC-TH-0075
  
2. “**Search for low-lying lattice QCD eigenstates in the Roper regime**”  
 A. L. Kiratidis, W. Kamleh, D. B. Leinweber, Z. W. Liu, F. M. Stokes and A. W. Thomas.  
 arXiv:1608.03051 [hep-lat]
  
1. “**Hamiltonian effective field theory study of the  $N^*(1440)$  resonance in lattice QCD**”  
 Z. W. Liu, W. Kamleh, D. B. Leinweber, F. M. Stokes, A. W. Thomas and J. J. Wu.  
 arXiv:1607.04536 [nucl-th]  
 ADP-16-27-T982

## **Edited Research Books**

5. “**Proceedings of 30th International Symposium on Lattice Field Theory (Lattice 2012) : Cairns, Australia, June 24-29, 2012**”  
 D. Leinweber, W. Kamleh, S. Mahbub, H. Matevosyan, A. Thomas, A. Williams, R. Young and J. Zanotti  
 PoS Conf. Proc. Lattice **2012** (2012).
  
4. “**LC 2005, Proceedings of the Cairns Topical Workshop on Light-Cone QCD and Nonperturbative Hadron Physics**”  
 D. B. Leinweber, L. von Smekal and A. G. Williams  
 Nucl. Phys. B (Proc. Supp.) **161** (2006) 258 pp.
  
3. “**Lattice Hadron Physics**”  
 A. C. Kalloniatis, D. B. Leinweber and A. G. Williams  
 Lect. Notes Phys. **663**, 1 (2004) 230 pp.
  
2. “**Lattice hadron physics. Proceedings, 2nd Topical Workshop, LHP 2003, Cairns, Australia, July 22-30, 2003**”  
 A. C. . Kalloniatis, D. B. Leinweber and A. G. . Williams  
 Nucl. Phys. Proc. Suppl. **128** (2004) 252 pp.
  
1. “**Lattice Hadron Physics. Proceedings, Workshop, LHP 2001, Cairns, Australia, July 9-18, 2001**”  
 A. C. Kalloniatis, D. B. Leinweber, W. Melnitchouk and A. G. Williams  
 Nucl. Phys. Proc. Suppl. **109A** (2002) 230 pp.

## **Refereed Scholarly Book Chapters**

4. “**Quark Propagator from LQCD and its Physical Implications**”  
 P. O. Bowman, U. M. Heller, D. B. Leinweber, A. G. Williams and J. B. Zhang  
 Lect. Notes Phys. **663**, 17 (2005) 47 pp.

3. “**Baryon spectroscopy in lattice QCD**”  
D. B. Leinweber, W. Melnitchouk, D. G. Richards, A. G. Williams and J. M. Zanotti  
Lect. Notes Phys. **663**, 71 (2005) 42 pp. [arXiv:nucl-th/0406032].
2. “**Hadron Structure and QCD: Effective Field Theory for Lattice Simulations**”  
D. B. Leinweber, A. W. Thomas and R. D. Young  
Lect. Notes Phys. **663**, 113 (2005) 17 pp.
1. “**Hadron properties with FLIC fermions**”  
J. M. Zanotti, D. B. Leinweber, W. Melnitchouk, A. G. Williams and J. B. Zhang  
Lect. Notes Phys. **663**, 199 (2005) 27 pp. [arXiv:hep-lat/0407039].

## Refereed Journal Articles

157. “**Structure of the  $\Lambda(1405)$  from Hamiltonian effective field theory**”  
Z. W. Liu, J. M. M. Hall, D. B. Leinweber, A. W. Thomas and J. J. Wu.  
Phys. Rev. D **95**, no. 1, 014506 (2017)  
arXiv:1607.05856 [nucl-th]
156. “**Singlet baryons in the graded symmetry approach to partially quenched QCD**”  
J. M. M. Hall and D. B. Leinweber.  
Phys. Rev. D **94**, no. 9, 094004 (2016)  
arXiv:1509.08226 [hep-lat]
155. “**Nucleon matrix elements using the variational method in lattice QCD**”  
J. Dragos *et al.*.  
Phys. Rev. D **94**, no. 7, 074505 (2016)  
arXiv:1606.03195 [hep-lat]
154. “**Spin of the proton in chiral effective field theory**”  
H. Li, P. Wang, D. B. Leinweber and A. W. Thomas.  
Phys. Rev. C **93**, no. 4, 045203 (2016)  
arXiv:1512.02354 [hep-ph]
153. “**Hamiltonian effective field theory study of the  $N^*(1535)$  resonance in lattice QCD**”  
Z. W. Liu, W. Kamleh, D. B. Leinweber, F. M. Stokes, A. W. Thomas and J. J. Wu.  
Phys. Rev. Lett. **116**, no. 8, 082004 (2016)  
arXiv:1512.00140 [hep-lat]
152. “**Parity-expanded variational analysis for non-zero momentum**”  
Finn M. Stokes, Waseem Kamleh, Derek B. Leinweber, M. Selim Mahbub, Benjamin J. Menadue, Benjamin J. Owen  
Phys. Rev. D **92**, no. 11, 114506 (2015) 10 pp.  
arXiv:1302.4152 [hep-lat]
151. “**Instanton contributions to the low-lying hadron mass spectrum**”  
S. D. Thomas, W. Kamleh and D. B. Leinweber  
Phys. Rev. D **92**, no. 9, 094515 (2015) 12 pp.  
arXiv:1410.7105 [hep-lat]

150. “**Connection between centre vortices and instantons through gauge-field smoothing**”  
 D. Trewartha, W. Kamleh and D. Leinweber.  
*Phys. Rev. D* **92**, no. 7, 074507 (2015) 14 pp.  
 arXiv:1509.05518 [hep-lat]
149. “**Transition of  $\rho \rightarrow \pi\gamma$  in Lattice QCD**”  
 B. J. Owen, W. Kamleh, D. B. Leinweber, M. S. Mahbub and B. J. Menadue  
*Phys. Rev. D* **92**, no. 3, 034513 (2015) 10 pp.  
 arXiv:1505.02876 [hep-lat]
148. “**Pure sea-quark contributions to the magnetic form factors of  $\Sigma$  baryons**”  
 P. Wang, D. B. Leinweber and A. W. Thomas.  
*Phys. Rev. D* **92**, no. 3, 034508 (2015)  
 arXiv:1504.06392 [hep-ph]
147. “**Evidence that centre vortices underpin dynamical chiral symmetry breaking in  $SU(3)$  gauge theory**”  
 D. Trewartha, W. Kamleh and D. Leinweber  
*Phys. Lett. B* **747**, 373 (2015) 5 pp.  
 arXiv:1502.06753 [hep-lat]
146. “**Gluonic profile of the static baryon at finite temperature**”  
 A. S. Bakry, D. B. Leinweber and A. G. Williams  
*Phys. Rev. D* **91**, 094512 (2015) 19 pp.  
 arXiv:1107.0150 [hep-lat]
145. “**Lattice baryon spectroscopy with multi-particle interpolators**”  
 A. L. Kiratidis, W. Kamleh, D. B. Leinweber and B. J. Owen  
*Phys. Rev. D* **91**, 094509 (2015) 12 pp.  
 arXiv:1501.07667 [hep-lat]
144. “**Light Meson Form Factors at near Physical Masses**”  
 B. Owen, W. Kamleh, D. Leinweber, B. Menadue and S. Mahbub  
*Phys. Rev. D* **91**, no. 7, 074503 (2015) 16 pp.  
 arXiv:1501.02561 [hep-lat]
143. “**Lattice QCD Evidence that the  $\Lambda(1405)$  Resonance is an Antikaon-Nucleon Molecule**”  
 J. M. M. Hall, W. Kamleh, D. B. Leinweber, B. J. Menadue, B. J. Owen, A. W. Thomas and R. D. Young  
*Phys. Rev. Lett.* **114**, 132002 (2015) 5pp.  
 arXiv:1411.3402 [hep-lat]
142. “**Visualisations of coherent centre domains in local Polyakov loops**”  
 F. M. Stokes, W. Kamleh and D. B. Leinweber  
*Annals Phys.* **348**, 341 (2014) 21 pp.  
 arXiv:1312.0991 [hep-lat]
141. “**Nucleon Excited State Wave Functions from Lattice QCD**”  
 D. S. Roberts, W. Kamleh and D. B. Leinweber  
*Phys. Rev. D* **89**, 074501 (2014) 16 pp.  
 arXiv:1311.6626 [hep-lat]

140. “Finite-volume and partial quenching effects in the magnetic polarizability of the neutron”  
 J. M. M. Hall, D. B. Leinweber and R. D. Young  
*Phys. Rev. D* **89**, 054511 (2014) 10 pp.  
 arXiv:1312.5781 [hep-lat]
139. “Magnetic properties of the nucleon in a uniform background field”  
 T. Primer, W. Kamleh, D. Leinweber and M. Burkardt  
*Phys. Rev. D* **89**, 034508 (2014) 11 pp.  
 arXiv:1307.1509 [hep-lat]
138. “Strange magnetic form factor of the nucleon in a chiral effective model at next to leading order”  
 P. Wang, D. B. Leinweber and A. W. Thomas  
*Phys. Rev. D* **89**, 033008 (2014) 8 pp.  
 arXiv:1312.3375 [hep-ph]
137. “Searching for low-lying multi-particle thresholds in lattice spectroscopy”  
 M. S. Mahbub, W. Kamleh, D. B. Leinweber and A. G. Williams  
*Annals Phys.* **342**, 270 (2014) 13 pp.  
 arXiv:1310.6803 [hep-lat]
136. “Quark Propagation in the Instantons of Lattice QCD”  
 D. Trewartha, W. Kamleh, D. Leinweber and D. S. Roberts  
*Phys. Rev. D* **88**, 034501 (2013) 11 pp.  
 arXiv:1306.3283 [hep-lat]
135. “Wave Function of the Roper from Lattice QCD”  
 D. S. Roberts, W. Kamleh and D. B. Leinweber  
*Phys. Lett. B*, **725**, 164 (2013) 6 pp.  
 arXiv:1304.0325 [hep-lat]
134. “Chiral extrapolations for nucleon electric charge radii”  
 J. M. M. Hall, D. B. Leinweber and R. D. Young  
*Phys. Rev. D* **88**, 014504 (2013) 9 pp.  
 arXiv:1305.3984 [hep-lat]
133. “Finite-volume corrections to charge radii”  
 J. M. M. Hall, D. B. Leinweber, B. J. Owen and R. D. Young  
*Phys. Lett. B* **725**, 101 (2013) 5 pp.  
 arXiv:1210.6124 [hep-lat]
132. “A finite-volume matrix Hamiltonian model for a Delta → nucleon-pion system”  
 J. M. M. Hall, A. C. -P. Hsu, D. B. Leinweber, A. W. Thomas and R. D. Young  
*Phys. Rev. D* **87**, 094510 (2013) 8 pp.  
 arXiv:1303.4157 [hep-lat]
131. “Variational Approach to the Calculation of gA”  
 B. J. Owen, J. Dragos, W. Kamleh, D. B. Leinweber, M. S. Mahbub, B. J. Menadue and J. M. Zanotti  
*Phys. Lett. B* **723**, 217 (2013) 7 pp.  
 arXiv:1212.4668 [hep-lat]

130. “**Structure and Flow of the Nucleon Eigenstates in Lattice QCD**”  
M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran and A. G. Williams  
Phys. Rev. D **87**, 094506 (2013) 16 pp.  
arXiv:1302.2987 [hep-lat]
129. “**Low-lying Odd-parity States of the Nucleon in Lattice QCD**”  
M. Selim Mahbub , Waseem Kamleh, Derek B. Leinweber, Peter J. Moran, Anthony G. Williams  
Phys. Rev. D Rapid Communications **87**, 011501 (2013) 5 pp.  
arXiv:1209.0240 [hep-lat]
128. “**Chiral extrapolation of nucleon magnetic moments at next-to-leading-order**”  
P. Wang, D. B. Leinweber, A. W. Thomas and R. D. Young  
Phys. Rev. D **86**, 094038 (2012) 9 pp.  
arXiv:1210.5072 [hep-ph]
127. “**Accessing High Momentum States In Lattice QCD**”  
D. S. Roberts, W. Kamleh, D. B. Leinweber, M. S. Mahbub and B. J. Menadue  
Phys. Rev. D **86**, 074504 (2012) 9 pp.  
arXiv:1206.5891 [hep-lat]
126. “**Chiral extrapolations for nucleon magnetic moments**”  
J. M. M. Hall, D. B. Leinweber and R. D. Young  
Phys. Rev. D **85**, 094502 (2012) 8 pp.  
arXiv:1201.6114 [hep-lat]
125. “**SU(3) centre vortices underpin confinement and dynamical chiral symmetry breaking**”  
E. -A. O’Malley, W. Kamleh, D. Leinweber and P. Moran  
Phys. Rev. D **86**, 054503 (2012) 8 pp.  
arXiv:1112.2490 [hep-lat]
124. “**Isolating the  $\Lambda(1405)$  in Lattice QCD**”  
B. J. Menadue, W. Kamleh, D. B. Leinweber and M. S. Mahbub  
Phys. Rev. Lett. **108**, 112001 (2012) 5 pp.  
arXiv:1109.6716 [hep-lat]
123. “**Roper Resonance in 2+1 Flavor QCD**”  
M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran and A. G. Williams  
Phys. Lett. B **707**, 389 (2012) 4 pp.  
arXiv:1011.5724 [hep-lat]
122. “**Bosonic string behavior in UV filtered QCD**”  
A. S. Bakry, D. B. Leinweber and A. G. Williams  
Phys. Rev. D **85**, 034504 (2012) 7 pp.  
arXiv:1011.1380 [hep-lat]
121. “**Chiral extrapolation beyond the power-counting regime**”  
J. M. M. Hall, F. X. Lee, D. B. Leinweber, K. F. Liu, N. Mathur, R. D. Young and J. B. Zhang  
Phys. Rev. D **84**, 114011 (2011) 8 pp.  
arXiv:1101.4411 [hep-lat]

120. “**Role of center vortices in chiral symmetry breaking in SU(3) gauge theory**”  
 P. O. Bowman, K. Langfeld, D. B. Leinweber, A. Sternbeck, L. von Smekal and A. G. Williams  
*Phys. Rev. D* **84**, 034501 (2011) 8 pp. [arXiv:1010.4624 [hep-lat]]
119. “**Wave Functions of the Proton Ground State in the Presence of a Uniform Background Magnetic Field in Lattice QCD**”  
 D. S. Roberts, P. O. Bowman, W. Kamleh and D. B. Leinweber  
*Phys. Rev. D* **83**, 094504 (2011) 13 pp. [arXiv:1011.1975 [hep-lat]]
118. “**On the ground state of Yang-Mills theory**”  
 A. S. Bakry, D. B. Leinweber and A. G. Williams  
*Annals Phys.* **326**, 2165 (2011) 7 pp. [arXiv:1102.3477 [hep-lat]]
117. “**Wilson mass dependence of the overlap topological charge density**”  
 P. J. Moran, D. B. Leinweber and J. Zhang  
*Phys. Lett. B* **695**, 337 (2011) 11 pp. [arXiv:1007.0854 [hep-lat]]
116. “**Preconditioning Maximal Center Gauge with Stout Link Smearing in SU(3)**”  
 A. O’Cais, W. Kamleh, K. Langfeld, B. Lasscock, D. B. Leinweber, P. J. Moran, A. Sternbeck, L. von Smekal  
*Phys. Rev. D* **82**, 114512 (2010) 10 pp. [arXiv:0807.0264 [hep-lat]]
115. “**Positive-parity Excited-states of the Nucleon in Quenched Lattice QCD**”  
 M. S. Mahbub, A. O. Cais, W. Kamleh, D. B. Leinweber and A. G. Williams  
*Phys. Rev. D* **82** 094504 (2010) 12 pp.  
 arXiv:1004.5455 [hep-lat]
114. “**String effects and the distribution of the glue in mesons at finite temperature**”  
 A. S. Bakry, D. B. Leinweber, P. J. Moran, A. Sternbeck and A. G. Williams  
*Phys. Rev. D* **82**, 094503 (2010) 15 pp. [arXiv:1004.0782 [hep-lat]]
113. “**Ordering of Spin- $\frac{1}{2}$  Excitations of the Nucleon in Lattice QCD**”  
 M. S. Mahbub, W. Kamleh, D. B. Leinweber, A. O. Cais and A. G. Williams  
*Phys. Lett. B* **693** 351 (2010) 7 pp. [arXiv:1007.4871 [hep-lat]]
112. “**Power Counting Regime of Chiral Effective Field Theory and Beyond**”  
 J. M. M. Hall, R. D. Young and D. B. Leinweber  
*Phys. Rev. D* **82** 034010 (2010) 19 pp. [arXiv:1002.4924 [hep-lat]]
111. “**An analysis of the nucleon spectrum from lattice partially-quenched QCD**”  
 W. Armour, C. R. Allton, D. B. Leinweber, A. W. Thomas and R. D. Young  
*Nucl. Phys. A* **840** 97 (2010) 23 pp. [arXiv:0810.3432 [hep-lat]]
110. “**Comparison of gluon flux-tube distributions for quark-diquark and quark-antiquark hadrons**”  
 F. Bissey, A. I. Signal and D. B. Leinweber  
*Phys. Rev. D* **80**, 114506 (2009) 6 pp. [arXiv:0910.0958 [hep-lat]]
109. “**Stout-link smearing in lattice fermion actions**”  
 J. B. Zhang, P. J. Moran, P. O. Bowman, D. B. Leinweber and A. G. Williams  
*Phys. Rev. D* **80**, 074503 (2009) 7 pp. [arXiv:0908.3726 [hep-lat]]

108. “**Isolating the Roper Resonance in Lattice QCD**”  
M. S. Mahbub, A. O. Cais, W. Kamleh, B. G. Lasscock, D. B. Leinweber and A. G. Williams  
Phys. Lett. B **679**, 418 (2009) 5 pp. [arXiv:0906.5433 [hep-lat]]
107. “**Isolating Excited States of the Nucleon in Lattice QCD**”  
M. S. Mahbub, A. O. Cais, W. Kamleh, B. G. Lasscock, D. B. Leinweber and A. G. Williams  
Phys. Rev. D **80**, 054507 (2009) 11 pp. [arXiv:0905.3616 [hep-lat]]
106. “**Chiral extrapolation of octet-baryon charge radii**”  
P. Wang, D. B. Leinweber, A. W. Thomas and R. D. Young  
Phys. Rev. D **79**, 094001 (2009) 12 pp. [arXiv:0810.1021 [hep-ph]]
105. “**Phase Transition from QMC Hyperonic Matter to Deconfined Quark Matter**”  
J. D. Carroll, D. B. Leinweber, A. G. Williams and A. W. Thomas  
Phys. Rev. C **79**, 045810 (2009) 12 pp. [arXiv:0809.0168 [nucl-th]]
104. “**Electromagnetic structure of decuplet baryons in the chiral regime**”  
S. Boinepalli, D. B. Leinweber, P. J. Moran, A. G. Williams, J. M. Zanotti and J. B. Zhang  
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103. “**Strange magnetic form factor of the proton at  $Q^2 = 0.23 \text{ GeV}^2$** ”  
P. Wang, D. B. Leinweber, A. W. Thomas and R. D. Young  
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102. “**Realistic Lattice Determination of  $\alpha_s(M_Z)$  Revisited**”  
K. Maltman, D. Leinweber, P. Moran and A. Sternbeck  
Phys. Rev. D **78**, 114504 (2008) 8 pp. [arXiv:0807.2020 [hep-lat]]
101. “**Center vortices and the quark propagator in SU(2) gauge theory**”  
P. O. Bowman, K. Langfeld, D. B. Leinweber, A. O’ Cais, A. Sternbeck, L. von Smekal and A. G. Williams  
Phys. Rev. D **78**, 054509 (2008) 7 pp. [arXiv:0806.4219 [hep-lat]]
100. “**Impact of Dynamical Fermions on QCD Vacuum Structure**”  
P. J. Moran and D. B. Leinweber  
Phys. Rev. D **78**, 054506 (2008) 7 pp. [arXiv:0801.2016 [hep-lat]]
99. “**Over-Improved Stout-Link Smearing**”  
P. J. Moran and D. B. Leinweber  
Phys. Rev. D **77**, 094501 (2008) 9 pp. [arXiv:0801.1165 [hep-lat]]
98. “**Vacuum structure revealed by over-improved stout-link smearing compared with the overlap analysis for quenched QCD**”  
E. M. Ilgenfritz, D. Leinweber, P. Moran, K. Koller, G. Schierholz and V. Weinberg  
Phys. Rev. D **77**, 074502 (2008) 12 pp. [arXiv:0801.1725 [hep-lat]]
97. “**Scaling analysis of FLIC fermion actions**”  
W. Kamleh, B. Lasscock, D. B. Leinweber and A. G. Williams  
Phys. Rev. D **77**, 014507 (2008) 6 pp. [arXiv:0709.1531 [hep-lat]]
96. “**Scaling behavior and positivity violation of the gluon propagator in full QCD**”  
Patrick O. Bowman, Urs M. Heller, Derek B. Leinweber, Maria B. Parappilly, Andre Sternbeck,

- Lorenz von Smekal, Anthony G. Williams, Jianbo Zhang  
 Phys. Rev. D **76**, 094505 (2007) 7 pp. [arXiv:hep-lat/0703022]
95. “**Unquenching effects in the quark and gluon propagator**”  
 W. Kamleh, P. O. Bowman, D. B. Leinweber, A. G. Williams and J. Zhang  
 Phys. Rev. D **76**, 094501 (2007) 9 pp. [arXiv:0705.4129 [hep-lat]]
94. “**Even parity excitations of the nucleon in lattice QCD**”  
 B. G. Lasscock, J. N. Hedditch, W. Kamleh, D. B. Leinweber, W. Melnitchouk, A. G. Williams and J. M. Zanotti  
 Phys. Rev. D **76**, 054510 (2007) 8 pp. [arXiv:0705.0861 [hep-lat]]
93. “**Pseudoscalar and vector meson form factors from lattice QCD**”  
 J. N. Hedditch, W. Kamleh, B. G. Lasscock, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
 Phys. Rev. D **75**, 094504 (2007) 11 pp. [arXiv:hep-lat/0703014]
92. “**Chiral extrapolation of nucleon magnetic form factors**”  
 P. Wang, D. B. Leinweber, A. W. Thomas and R. D. Young  
 Phys. Rev. D **75**, 073012 (2007) 10 pp. [arXiv:hep-ph/0701082]
91. “**Quark-gluon vertex in general kinematics**”  
 A. Kizilrsu, D. B. Leinweber, J. I. Skullerud and A. G. Williams  
 Eur. Phys. J. **C50**, 871 (2007) 5 pp. [arXiv:hep-lat/0610078]
90. “**Gluon flux-tube distribution and linear confinement in baryons**”  
 F. Bissey, F. G. Cao, A. R. Kitson, A. I. Signal, D. B. Leinweber, B. G. Lasscock and A. G. Williams  
 Phys. Rev. D **76**, 114512 (2007) 16 pp. [arXiv:hep-lat/0606016]
89. “**Precision electromagnetic structure of octet baryons in the chiral regime**”  
 S. Boinepalli, D. B. Leinweber, A. G. Williams, J. M. Zanotti and J. B. Zhang  
 Phys. Rev. D**74**, 093005 (2006) 29 pp. [arXiv:hep-lat/0604022]
88. “**Strange electric form factor of the proton**”  
 D. B. Leinweber, S. Boinepalli, A. W. Thomas, P. Wang, A. G. Williams, R. D. Young, J. M. Zanotti and J. B. Zhang  
 Phys. Rev. Lett. **97**, 022001 (2006) 4 pp. [arXiv:hep-lat/0601025]
87. “**Spin glass behavior of the antiferromagnetic Ising model on a scale-free network**”  
 M. Bartolozzi, T. Surungan, D. B. Leinweber and A. G. Williams  
 Phys. Rev. B **73**, 224419 (2006) 8 pp. [arXiv:cond-mat/0512488]
86. “**Unified chiral analysis of the vector meson spectrum from lattice QCD**”  
 W. Armour, C. R. Allton, D. B. Leinweber, A. W. Thomas and R. D. Young  
 J. Phys. G: Nucl. Part. Phys. **32**, 971-991 (2006) 21 pp. [arXiv:hep-lat/0510078]
85. “**Scaling behavior of quark propagator in full QCD**”  
 M. B. Parappilly, P. O. Bowman, U. M. Heller, D. B. Leinweber, A. G. Williams and J. B. Zhang  
 Phys. Rev. D **73**, 054504 (2006) 5 pp. [arXiv:hep-lat/0511007]
84. “**Symbiosis in the Bak-Sneppen Model for biological evolution with Economic Applications**”  
 M. Bartolozzi, D. B. Leinweber and A. W. Thomas  
 Physica A **365**, 499 (2006) 10 pp. [arXiv:cond-mat/0503421]

83. “**Nonperturbative renormalization of composite operators with overlap fermions**”  
 J. B. Zhang, N. Mathur, S. J. Dong, Terrence Draper, I. Horvath, F. X. Lee, D. B. Leinweber, K. F. Liu, A. G. Williams  
*Phys. Rev. D* **72**, 114509 (2005) 18 pp. [arXiv:hep-lat/0507022]
82. “ **$1^-$  exotic meson at light quark masses**”  
 J. N. Hedditch, W. Kamleh, B. G. Lasscock, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
*Phys. Rev. D* **72**, 114507 (2005) 8 pp. [arXiv:hep-lat/0509106]
81. “**Spin 3/2 pentaquark resonance signature in lattice QCD**”  
 B. G. Lasscock, D. B. Leinweber, W. Melnitchouk, A. W. Thomas, A. G. Williams, R. D. Young and J. M. Zanotti  
*Phys. Rev. D* **72**, 074507 (2005) 10 pp. [arXiv:hep-lat/0504015]
80. “**Neutron stars and strange stars in the chiral SU(3) quark mean field model**”  
 P. Wang, S. Lawley, D. B. Leinweber, A. W. Thomas and A. G. Williams  
*Phys. Rev. C* **72**, 045801 (2005) 8 pp. [arXiv:nucl-th/0506014]
79. “**Chiral and continuum extrapolation of partially-quenched lattice results**”  
 C. R. Allton, W. Armour, D. B. Leinweber, A. W. Thomas and R. D. Young  
*Phys. Lett. B* **628**, 125 (2005) 6 pp. [arXiv:hep-lat/0504022]
78. “**Stochastic Opinion Formation in Scale-Free Networks**”  
 M. Bartolozzi, D. B. Leinweber and A. W. Thomas  
*Phys. Rev. E* **72**, 046113 (2005) 10 pp. [arXiv:physics/0504168]
77. “**Search for the pentaquark resonance signature in lattice QCD**”  
 B. G. Lasscock, D. B. Leinweber, W. Melnitchouk, A. W. Thomas, A. G. Williams, R. D. Young and J. M. Zanotti  
*Phys. Rev. D* **72**, 014502 (2005) 22 pp. [arXiv:hep-lat/0503008]
76. “**Self-Similar Log-Periodic Structures in Western Stock Markets from 2000**”  
 M. Bartolozzi, S. Drozdz, D. B. Leinweber, J. Speth and A. W. Thomas  
*Int. J. of Mod. Phys. C* **16**, 1347 (2005) 15 pp. [arXiv:cond-mat/0501513]
75. “**Fat link irrelevant clover overlap quark propagator**”  
 W. Kamleh, P. O. Bowman, D. B. Leinweber, A. G. Williams and J. Zhang  
*Phys. Rev. D* **71**, 094507 (2005) 11 pp. [arXiv:hep-lat/0412022]
74. “**Precise determination of the strangeness magnetic moment of the nucleon**”  
 D. B. Leinweber, S. Boinepalli, I. C. Cloet, A. W. Thomas, A. G. Williams, *et al.*  
*Phys. Rev. Lett.* **94**, 212001 (2005) 4 pp. [arXiv:hep-lat/0406002]
73. “**Improved chiral properties of FLIC fermions**”  
 S. Boinepalli, W. Kamleh, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
*Phys. Lett. B* **616**, 196 (2005) 7 pp. [arXiv:hep-lat/0405026]
72. “**Unquenched quark propagator in Landau gauge**”  
 P. O. Bowman, U. M. Heller, D. B. Leinweber, M. B. Parappilly, A. G. Williams and J. Zhang  
*Phys. Rev. D* **71**, 054507 (2005) 7 pp. [arXiv:hep-lat/0501019]

71. “**Scaling of FLIC fermions**”  
 J. M. Zanotti, B. Lasscock, D. B. Leinweber and A. G. Williams  
*Phys. Rev. D* **71**, 034510 (2005) 5 pp. [arXiv:hep-lat/0405015]
70. “**Quark propagator in Landau and Laplacian gauges with overlap fermions**”  
 J. B. Zhang, P. O. Bowman, R. J. Coad, U. M. Heller, D. B. Leinweber and A. G. Williams  
*Phys. Rev. D* **71**, 014501 (2005) 8 pp. [arXiv:hep-lat/0410045]
69. “**Leading quenching effects in the proton magnetic moment**”  
 R. D. Young, D. B. Leinweber and A. W. Thomas  
*Phys. Rev. D* **71**, 014001 (2005) 9 pp. [arXiv:hep-lat/0406001]
68. “**Self-Organized Criticality and Stock Market Dynamics: an Empirical Study**”  
 M. Bartolozzi, D. B. Leinweber and A. W. Thomas  
*Physica A* **350**, 451 (2005) 15 pp. [arXiv:cond-mat/0405257]
67. “**Liquid-gas phase transition and Coulomb instability of asymmetric nuclear systems**”  
 P. Wang, D. B. Leinweber, A. W. Thomas and A. G. Williams  
*Nucl. Phys. A* **748**, 226 (2005) 15 pp. [arXiv:nucl-th/0407057]
66. “**Liquid-gas phase transition in nuclear matter including strangeness**”  
 P. Wang, D. B. Leinweber, A. W. Thomas and A. G. Williams  
*Phys. Rev. C* **70**, 055204 (2004) 8 pp. [arXiv:nucl-th/0407056]
65. “**New treatment of the chiral SU(3) quark mean field model**”  
 P. Wang, D. B. Leinweber, A. W. Thomas and A. G. Williams  
*Nucl. Phys. A* **744**, 273 (2004) 20 pp. [arXiv:nucl-th/0404079]
64. “**Hybrid Monte Carlo with fat link fermion actions**”  
 W. Kamleh, D. B. Leinweber and A. G. Williams  
*Phys. Rev. D* **70**, 014502 (2004) 9 pp. [arXiv:hep-lat/0403019]
63. “**Limits on variations of the quark masses, QCD scale, and fine structure constant**”  
 V. V. Flambaum, D. B. Leinweber, A. W. Thomas and R. D. Young  
*Phys. Rev. D* **69**, 115006 (2004) 8 pp. [arXiv:hep-ph/0402098]
62. “**Unquenched gluon propagator in Landau gauge**”  
 P. O. Bowman, U. M. Heller, D. B. Leinweber, M. B. Parappilly and A. G. Williams  
*Phys. Rev. D* **70**, 034509 (2004) 4 pp. [arXiv:hep-lat/0402032]
61. “**Topological charge evolution in the Markov-chain of QCD**”  
 D. B. Leinweber, A. G. Williams, J. b. Zhang and F. X. Lee  
*Phys. Lett. B* **585**, 187 (2004) 5 pp. [arXiv:hep-lat/0312035]
60. “**The Hamiltonian limit of (3+1)D SU(3) lattice gauge theory on anisotropic lattices**”  
 T. M. R. Byrnes, M. Loan, C. J. Hamer, F. D. R. Bonnet, D. B. Leinweber, A. G. Williams and  
 J. M. Zanotti  
*Phys. Rev. D* **69**, 074509 (2004) 10 pp. [arXiv:hep-lat/0311014]
59. “**Comparison of  $|Q| = 1$  and  $|Q| = 2$  gauge-field configurations on the lattice four-torus**”  
 S. O. Bilson-Thompson, D. B. Leinweber, A. G. Williams and G. V. Dunne  
*Annals Phys.* **311**, 267 (2004) 21 pp. [arXiv:hep-lat/0306010]

58. “**Physical nucleon properties from lattice QCD**”  
D. B. Leinweber, A. W. Thomas and R. D. Young  
Phys. Rev. Lett. **92**, 242002 (2004) 4 pp. [arXiv:hep-lat/0302020]
57. “**Scaling behavior of the overlap quark propagator in Landau gauge**”  
J. B. Zhang, P. O. Bowman, D. B. Leinweber, A. G. Williams and F. D. R. Bonnet  
Phys. Rev. D **70**, 034505 (2004) 6 pp. [arXiv:hep-lat/0301018]
56. “**Quark Contributions to Baryon Magnetic Moments in Full, Quenched and Partially Quenched QCD**”  
D. B. Leinweber  
Phys. Rev. D **69**, 014005 (2004) 22 pp. [arXiv:hep-lat/0211017]
55. “**Spin-3/2 Nucleon and Delta Baryons in Lattice QCD**”  
J. M. Zanotti, D. B. Leinweber, A. G. Williams, J. B. Zhang, W. Melnitchouk and S. Choe  
Phys. Rev. D **68**, 054506 (2003) 8 pp. [arXiv:hep-lat/0304001]
54. “**Nonperturbative Structure of the Quark Gluon Vertex**”  
J. I. Skullerud, P. O. Bowman, A. Kizilersu, D. B. Leinweber and A. G. Williams  
JHEP **0304**, 047 (2003) 15 pp. [arXiv:hep-ph/0303176]
53. “**Delta Baryon Magnetic Moments from Lattice QCD**”  
I. C. Cloet, D. B. Leinweber and A. W. Thomas  
Phys. Lett. B **563**, 157 (2003) 8 pp. [arXiv:hep-lat/0302008]
52. “**Convergence of Chiral Effective Field Theory**”  
R. D. Young, D. B. Leinweber and A. W. Thomas  
Prog. Part. Nucl. Phys. **50** 399-417 (2003) 19 pp. [arXiv:hep-lat/0212031]
51. “**Highly-Improved Lattice Field-Strength Tensor**”  
S. O. Bilson-Thompson, D. B. Leinweber and A. G. Williams  
Annals Phys. **304**, 1 (2003) 21 pp. [arXiv:hep-lat/0203008]
50. “**Excited Baryons in Lattice QCD**”  
W. Melnitchouk, J. N. Hedditch, D. B. Leinweber, A. G. Williams, J. M. Zanotti and J. B. Zhang  
[CSSM Lattice collaboration]  
Phys. Rev. D **67**, 114506 (2003) 17 pp. [arXiv:hep-lat/0202022]
49. “**Gluon Propagator on Coarse Lattices in Laplacian Gauges**”  
P. O. Bowman, U. M. Heller, D. B. Leinweber and A. G. Williams  
Phys. Rev. D **66**, 074505 (2002) 8 pp. [arXiv:hep-lat/0206010]
48. “**Chiral Analysis of Quenched Baryon Masses**”  
R. D. Young, D. B. Leinweber, A. W. Thomas and S. V. Wright  
Phys. Rev. D **66**, 094507 (2002) 10 pp. [arXiv:hep-lat/0205017]
47. “**Simple Quark Model with Chiral Phenomenology**”  
I. C. Cloet, D. B. Leinweber and A. W. Thomas  
Phys. Rev. C **65**, 062201 (2002) 4 pp. [arXiv:hep-ph/0203023]
46. “**Overlap Quark Propagator in Landau Gauge**”  
F. D. Bonnet, P. O. Bowman, D. B. Leinweber, A. G. Williams and J. b. Zhang [CSSM Lattice

- collaboration]  
Phys. Rev. D **65**, 114503 (2002) 13 pp. [arXiv:hep-lat/0202003]
- 45. “Accelerated Overlap Fermions”**  
W. Kamleh, D. H. Adams, D. B. Leinweber and A. G. Williams  
Phys. Rev. D **66**, 014501 (2002) 9 pp. [arXiv:hep-lat/0112041]
- 44. “Low-Lying Eigenmodes of the Wilson-Dirac Operator and Correlations with Topological Objects”**  
D. J. Kusterer, J. Hedditch, W. Kamleh, D. B. Leinweber and A. G. Williams  
Nucl. Phys. B **628**, 253 (2002) 5 pp. [arXiv:hep-lat/0111029]
- 43. “Numerical Study of Lattice Index Theorem using Improved Cooling and Overlap Fermions”**  
J. B. Zhang, S. O. Bilson-Thompson, F. D. Bonnet, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
Phys. Rev. D **65**, 074510 (2002) 7 pp. [arXiv:hep-lat/0111060]
- 42. “Hadron Masses from Novel Fat-Link Fermion Actions”**  
J. M. Zanotti, S. Bilson-Thompson, F. D. R. Bonnet, P. D. Coddington, D. B. Leinweber, A. G. Williams, J. B. Zhang, W. Melnitchouk, and F. X. Lee  
Phys. Rev. D **65**, 074507 (2002) 6 pp. [arXiv:hep-lat/0110216]
- 41. “Chiral Behaviour of the Rho Meson in Lattice QCD”**  
D. B. Leinweber, A. W. Thomas, K. Tsushima and S. V. Wright.  
Phys. Rev. D**64**, 094502, 1–8 (2001) 8 pp. [arXiv:hep-lat/0104013]
- 40. “Improved Smoothing Algorithms for Lattice Gauge Theory”**  
F. D. Bonnet, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
Phys. Rev. D **65**, 114510 (2002) 19 pp. [arXiv:hep-lat/0106023]
- 39. “Nonperturbative Improvement and Tree-Level Correction of the Quark Propagator”**  
J. Skullerud, D. B. Leinweber and A. G. Williams  
Phys. Rev. D **64**, 074508 (2001) 9 pp. [arXiv:hep-lat/0102013]
- 38. “Infinite Volume and Continuum Limits of the Landau-Gauge Gluon Propagator”**  
F. D. Bonnet, P. O. Bowman, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
Phys. Rev. D**64**, 034501, 1–10 (2001) 10 pp. [arXiv:hep-lat/0101013]
- 37. “Chiral Symmetry and the Intrinsic Structure of the Nucleon”**  
D. B. Leinweber, A. W. Thomas and R. D. Young.  
Phys. Rev. Lett. **86**, 5011 (2001) 4 pp. [arXiv:hep-ph/0101211]
- 36. “General Algorithm for Improved Lattice Actions on Parallel Computing Architectures”**  
F. D. Bonnet, D. B. Leinweber and A. G. Williams.  
J. of Comp. Phys. **170**, 1 (2001) 17 pp. [arXiv:hep-lat/0001017]
- 35. “Incorporating Chiral Symmetry and Heavy Quark Theory in Extrapolations of Octet Baryon Charge Radii”**  
E. J. Hackett-Jones, D. B. Leinweber and A. W. Thomas.  
Phys. Lett. **B494**, 89 (2000) 11 pp. [arXiv:hep-lat/0008018]

34. “**Incorporating Chiral Symmetry in Extrapolations of Octet Baryon Magnetic Moments**”  
E. J. Hackett-Jones, D. B. Leinweber and A. W. Thomas.  
Phys. Lett. **B489**, 143 (2000) 5 pp. [arXiv:hep-lat/0004006]
33. “**Infrared behavior of the gluon propagator on a large volume lattice**”  
F. D. Bonnet, P. O. Bowman, D. B. Leinweber and A. G. Williams.  
Phys. Rev. **D62**, 051501 (2000) 4 pp. [arXiv:hep-lat/0002020]
32. “**Lattice QCD Calculations of the Sigma Commutator**”  
D. B. Leinweber, A. W. Thomas and S. V. Wright.  
Phys. Lett. **B482**, 109 (2000) 5 pp. [arXiv:hep-lat/0001007]
31. “**Calibration of Smearing and Cooling Algorithms in SU(3)-Color Gauge Theory**”  
F. D. Bonnet, P. Fitzhenry, D. B. Leinweber, M. R. Stanford and A. G. Williams.  
Phys. Rev. **D 62**, 094509 (2000) 12 pp. [arXiv:hep-lat/0001018]
30. “**Lattice QCD Analysis of the Strangeness Magnetic Moment of the Nucleon**”  
D. B. Leinweber and A. W. Thomas.  
Phys. Rev. **D62**, 074505 (2000) 10 pp. [arXiv:hep-lat/9912052]
29. “**Baryon Masses from Lattice QCD: Beyond the Perturbative Chiral Regime**”  
D.B. Leinweber, A.W. Thomas, K. Tsushima and S.V. Wright.  
Phys. Rev. **D61**, 074502 (2000) 10 pp. [arXiv:hep-lat/9906027]
28. “**Discretization Errors in Landau Gauge on the Lattice**”  
F.D. Bonnet, P.O. Bowman, D.B. Leinweber, A.G. Williams and D.G. Richards.  
Austral. J. Phys. **52**, 939–948 (1999) 10 pp. [arXiv:hep-lat/9905006]
27. “**Asymptotic Scaling and Infrared Behavior of the Gluon Propagator**”  
D.B. Leinweber, J.I. Skullerud, A.G. Williams and C. Parrinello.  
Phys. Rev. **D60**, 094507 (1999) 17 pp. [arXiv:hep-lat/9811027]  
Erratum *ibid.* **D61**, 079901 (2000).
26. “**Nucleon magnetic moments beyond the perturbative chiral regime**”  
D. B. Leinweber, D. H. Lu and A. W. Thomas  
Phys. Rev. D **60**, 034014 (1999) 6 pp. [arXiv:hep-lat/9810005]
25. “**Valence QCD: Connecting QCD to the Quark Model**”  
K.F. Liu, S.J. Dong, T. Draper, D.B. Leinweber, J. Sloan, W. Wilcox, R.M. Woloshyn.  
Phys. Rev. **D59**, 112001 (1999) 26 pp. [arXiv:hep-ph/9806491]
24. “**Light Hadron Spectroscopy on Coarse Lattices with  $\mathcal{O}(a^2)$  Mean-Field Improved Actions**”  
F. X. Lee and D. B. Leinweber.  
Phys. Rev. **D59**, 074504 (1999) 10 pp. [arXiv:hep-lat/9711044]
23. “**Gluon Propagator in the Infrared Region**”  
D. B. Leinweber, J. I. Skullerud, A. G. Williams, and C. Parrinello.  
Phys. Rev. **D58**, 031501 (1998) 5 pp. [arXiv:hep-lat/9803015]
22. “**New QCD Sum Rules for Nucleon Axial Vector Coupling Constants**”  
Frank X. Lee, Derek B. Leinweber and Xuemin Jin.  
Phys. Rev. **D55**, 4066 (1997) 17 pp. [arXiv:nucl-th/9611011]

21. “**QCD Sum Rules for Skeptics**”  
 Derek B. Leinweber  
*Annals Phys.* **254**, 328 (1997) 69 pp. [arXiv:nucl-th/9510051]
20. “**Background-Field Formalism in Nonperturbative QCD**”  
 Matthias Burkardt, Xuemin Jin, and Derek B. Leinweber.  
*Phys. Lett.* **B385**, 52 (1996) 5 pp. [arXiv:hep-ph/9604450]
19. “**QCD Equalities for Baryon Current Matrix Elements**”  
 Derek B. Leinweber  
*Phys. Rev.* **D53**, 5115 (1996) 10 pp. [arXiv:hep-ph/9512319]
18. “**New QCD Sum Rules for Nucleons in Nuclear Matter**”  
 R. J. Furnstahl, Xuemin Jin, and Derek B. Leinweber.  
*Phys. Lett.* **B387**, 253 (1996) 6 pp. [arXiv:nucl-th/9511007]
17. “ **$\rho - \omega$  Mixing via QCD Sum Rules with Finite Mesonic Widths**”  
 M.J. Iqbal, Xuemin Jin and Derek B. Leinweber.  
*Phys. Lett.* **B386**, 55 (1996) 7 pp. [arXiv:nucl-th/9507026]
16. “**Mesonic Width Effects on the Momentum Dependence of the  $\rho - \omega$  Mixing Matrix Element**”  
 M.J. Iqbal, Xuemin Jin and Derek B. Leinweber.  
*Phys. Lett.* **B367**, 45 (1996) 5 pp. [arXiv:nucl-th/9504026]
15. “**Valid QCD Sum Rules for Vector Mesons in Nuclear Matter**”  
 Xuemin Jin and Derek B. Leinweber.  
*Phys. Rev.* **C52**, 3344 (1995) 9 pp. [arXiv:nucl-th/9510064]
14. “**Nucleon Properties from Unconventional Interpolating Fields**”  
 Derek B. Leinweber  
*Phys. Rev.* **D51**, 6383 (1995) 11 pp. [arXiv:nucl-th/9406001]
13. “**Testing QCD Sum Rule Techniques on the Lattice**”  
 Derek B. Leinweber  
*Phys. Rev.* **D51**, 6369 (1995) 14 pp. [arXiv:nucl-th/9405002]
12. “**Unquenching the  $\rho$  Meson**”  
 Derek B. Leinweber and Thomas D. Cohen.  
*Phys. Rev.* **D49**, 3512 (1994) 7 pp. [arXiv:hep-ph/9307261]
11. “**Baryon Octet to Decuplet Electromagnetic Transitions**”  
 Derek B. Leinweber, Terrence Draper and R.M. Woloshyn.  
*Phys. Rev.* **D48**, 2230 (1993) 20 pp. [arXiv:hep-lat/9212016]
10. “**Do Quarks Really Form Diquark Clusters in the Nucleon?**”  
 Derek B. Leinweber  
*Phys. Rev.* **D47**, 5096 (1993) 8 pp. [arXiv:hep-ph/9302266]
9. “**The Pion Cloud in Quenched QCD**”  
 Thomas D. Cohen and Derek B. Leinweber.  
*Comments Nucl. Part. Phys.* **21**, 137 (1993) 14 pp. [arXiv:hep-ph/9212225]

8. “**Chiral Corrections to Lattice Calculations of Charge Radii**”  
Derek B. Leinweber and Thomas D. Cohen.  
Phys. Rev. **D47**, 2147 (1993) 4 pp. [arXiv:hep-lat/9211058]
  
7. “**Decuplet Baryon Structure from Lattice QCD**”  
Derek B. Leinweber, Terrence Draper and R.M. Woloshyn.  
Phys. Rev. **D46**, 3067 (1992) 19 pp. [arXiv:hep-lat/9208025]
  
6. “**Lattice QCD Evaluation of Baryon Magnetic Moment Sum Rules**”  
Derek B. Leinweber  
Phys. Rev. **D45**, 252 (1992) 7 pp.
  
5. “**Electromagnetic Structure of Octet Baryons**”  
Derek B. Leinweber, R.M. Woloshyn and Terrence Draper.  
Phys. Rev. **D43**, 1659 (1991) 20 pp.
  
4. “**Electromagnetic Form Factors of Spin-3/2 Baryons**”  
S. Nozawa and Derek B. Leinweber.  
Phys. Rev. **D42**, 3567 (1990) 5 pp.
  
3. “**QCD Sum Rule Analysis of Spin-Orbit Splitting in Baryons**”  
Derek B. Leinweber  
Annals Phys. **198**, 203 (1990) 49 pp.
  
2. “**Momentum Dependent Effects in the Decays of Charmonium and Upsilon**”  
Derek B. Leinweber  
Nucl. Phys. **A470**, 477 (1987) 11 pp.
  
1. “**Vector Meson Decay and the Pion-Quark Coupling Constant**”  
Derek B. Leinweber  
Nucl. Phys. **A457**, 529 (1986) 12 pp.

## Refereed Conference Proceedings

150. “**Study of Low-Lying Baryons with Hamiltonian Effective Field Theory**”  
Z. W. Liu, J. M. M. Hall, W. Kamleh, D. B. Leinweber, F. M. Stokes, A. W. Thomas and J. J. Wu.  
arXiv:1701.08582 [nucl-th]  
ADP-17-3-T1009
  
149. “**Electromagnetic Form Factors of Excited Nucleons via Parity-Expanded Variational Analysis**”  
F. M. Stokes, W. Kamleh, D. B. Leinweber and B. J. Owen.  
arXiv:1701.07177 [hep-lat]  
ADP-17-05-T1011
  
148. “**Centre vortices are the seeds of dynamical chiral symmetry breaking**”  
W. Kamleh, D. B. Leinweber and D. Trewartha.  
arXiv:1701.03241 [hep-lat]  
ADP-16-50-T1006

147. “**Evidence that the Lambda(1405) is a molecular antikaon-nucleon bound state**”  
 W. Kamleh, J. Hall, D. B. Leinweber, B. Menadue, B. Owen, A. W. Thomas and R. D. Young.  
 PoS CD **15**, 037 (2016).
146. “**N\* Spectroscopy from Lattice QCD: The Roper Explained**”  
 Derek Leinweber, Waseem Kamleh, Adrian Kiratidis, Zhan-Wei Liu, Selim Mahbub, Dale Roberts,  
 Finn Stokes, Anthony W. Thomas and Jiajun Wu  
 JPS Conf. Proc. **10**, 010011 (2016)  
 arXiv:1511.09146 [hep-lat]  
*In the proceedings of Nstar 2015 – The 10th International Workshop on the Physics of Excited  
 Nucleons. Suita Campus, Osaka University, Osaka, Japan. 25–28 May 2015.*
145. “**Finite-volume Hamiltonian method for  $\pi\pi$  scattering in lattice QCD**”  
 J. J. Wu, T.-S. H. Lee, D. B. Leinweber, A. W. Thomas and R. D. Young.  
 JPS Conf. Proc. **10**, 062002 (2016)  
 arXiv:1512.02771 [hep-lat]  
*In the proceedings of Nstar 2015 – The 10th International Workshop on the Physics of Excited  
 Nucleons. Suita Campus, Osaka University, Osaka, Japan. 25–28 May 2015.*
144. “**Improved determination of hadron matrix elements using the variational method**”  
 J. Dragos, R. Horsley, W. Kamleh, D. Leinweber, Y. Nakamura, P. Rakow, G. Schierholz, R. Young,  
 J. Zanotti  
 PoS LATTICE **2015** (2015).  
 arXiv:1511.05591 [hep-lat]  
*In the proceedings of Lattice 2015 – The 33rd International Symposium on Lattice Field Theory,  
 Kobe, Japan. 14–18 July, 2015.*
143. “**Electromagnetic matrix elements for negative parity nucleons**”  
 B. Owen, W. Kamleh, D. Leinweber, S. Mahbub and B. Menadue  
 PoS LATTICE **2014**, 159 (2014).  
 arXiv:1412.4432 [hep-lat]  
*In the proceedings of Lattice 2014 – The 32nd International Symposium on Lattice Field Theory,  
 Columbia University, New York, NY. 23–28 June, 2014.*
142. “**Nucleon spectroscopy using multi-particle operators**”  
 W. Kamleh, A. L. Kiratidis and D. B. Leinweber  
 PoS LATTICE **2014**, 098 (2014).  
 arXiv:1411.7119 [hep-lat]  
*In the proceedings of Lattice 2014 – The 32nd International Symposium on Lattice Field Theory,  
 Columbia University, New York, NY. 23–28 June, 2014.*
141. “**On the Structure of the Lambda 1405**”  
 J. M. M. Hall, W. Kamleh, D. B. Leinweber, B. J. Menadue, B. J. Owen, A. W. Thomas and  
 R. D. Young  
 PoS LATTICE **2014**, 094 (2014).  
 arXiv:1411.3781 [hep-lat]  
*In the proceedings of Lattice 2014 – The 32nd International Symposium on Lattice Field Theory,  
 Columbia University, New York, NY. 23–28 June, 2014.*
140. “**Centre Vortex Effects on the Overlap Quark Propagator**”  
 D. Trewartha, W. Kamleh and D. Leinweber

- PoS LATTICE **2014**, 357 (2014).  
arXiv:1411.0766 [hep-lat]  
*In the proceedings of Lattice 2014 – The 32nd International Symposium on Lattice Field Theory, Columbia University, New York, NY. 23–28 June, 2014.*
139. “**Exploring the Roper wave function in Lattice QCD**”  
W. Kamleh, D. B. Leinweber and D. S. Roberts  
PoS LATTICE **2013**, 245 (2013).  
arXiv:1312.2314 [hep-lat]  
*In the proceedings of Lattice 2013 – The 31st International Symposium on Lattice Field Theory, Mainz, Germany. 29 July–3 August, 2013.*
138. “**Probing the proton and its excitations in full QCD**”  
B. J. Owen, W. Kamleh, D. B. Leinweber, M. S. Mahbub and B. J. Menadue  
PoS LATTICE **2013**, 277 (2013).  
arXiv:1312.0291 [hep-lat]  
*In the proceedings of Lattice 2013 – The 31st International Symposium on Lattice Field Theory, Mainz, Germany. 29 July–3 August, 2013.*
137. “**Electromagnetic Form Factors for the  $\Lambda(1405)$** ”  
B. J. Menadue, W. Kamleh, D. B. Leinweber, M. S. Mahbub and B. J. Owen  
PoS LATTICE **2013**, 280 (2013).  
arXiv:1311.5026 [hep-lat]  
*In the proceedings of Lattice 2013 – The 31st International Symposium on Lattice Field Theory, Mainz, Germany. 29 July–3 August, 2013.*
136. “**Odd-parity nucleon eigenstates in full QCD**”  
M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran and A. G. Williams  
PoS LATTICE **2012**, 153 (2012).  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
135. “**Correlation matrix methods for excited meson form factors in full QCD**”  
B. Owen, W. Kamleh, D. B. Leinweber, S. Mahbub and B. Menadue  
PoS LATTICE **2012**, 173 (2012).  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
134. “**Electromagnetic form factors of the Lambda(1405) in (2+1)-flavour lattice QCD**”  
B. J. Menadue, W. Kamleh, D. B. Leinweber, M. S. Mahbub and B. J. Owen  
PoS LATTICE **2012**, 178 (2012).  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
133. “**Light meson transition form factors on the lattice**”  
B. Owen, W. Kamleh, D. Leinweber, A. El Bakry and P. Moran  
PoS LATTICE **2012**, 254 (2012).  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*

132. “**Instanton contributions to the low-lying hadronic mass spectrum**”  
 S. Thomas, W. Kamleh and D. Leinweber  
 PoS LATTICE **2012**, 256 (2012).  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
131. “**The wave function of the Roper resonance**”  
 D. S. Roberts, W. Kamleh and D. B. Leinweber  
 PoS LATTICE **2012**, 261 (2012).  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
130. “**Gluonic fields as unraveled with Polyakov lines and predicted by bosonic strings**”  
 A. S. Bakry, D. B. Leinweber and A. G. Williams  
 PoS LATTICE **2012**, 271 (2012).  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
129. “**Multi-Particle Baryon Spectroscopy**”  
 A. L. Kiratidis, W. Kamleh and D. B. Leinweber  
 PoS LATTICE **2012**, 250 (2012)  
 arXiv:1301.3591 [hep-lat]  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
128. “**Magnetic properties of the neutron in a uniform background field**”  
 T. Primer, W. Kamleh, D. Leinweber and M. Burkardt  
 PoS LATTICE **2012**, 183 (2012)  
 arXiv:1212.1963 [hep-lat]  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
127. “**The Influence of Instantons on the Quark Propagator**”  
 D. Trewartha, W. Kamleh, D. Leinweber and P. Moran  
 PoS LATTICE **2012**, 247 (2012)  
 arXiv:1212.0275 [hep-lat]  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
126. “**Baryon resonances and hadronic interactions in a finite volume**”  
 J. M. M. Hall, A. C. -P. Hsu, D. B. Leinweber, A. W. Thomas and R. D. Young  
 PoS LATTICE **2012**, 145 (2012)  
 arXiv:1207.3562 [hep-lat]  
*In the proceedings of Lattice 2012 – The 30th International Symposium on Lattice Field Theory, Cairns, Australia. June 24–29, 2012.*
125. “**Baryon properties from the CSSM Lattice Collaboration**”  
 Waseem Kamleh , Derek B. Leinweber, M. Selim Mahbub, Benjamin J. Menadue, Thomas Primer, Anthony G. Williams  
 PoS QNP **2012**, 106 (2012).

*In the proceedings of the 6th International Conference on Quarks and Nuclear Physics (QNP 2012), Palaiseau, France, 16-20 Apr 2012.*

**124. “Nucleon excitations in 2+1 flavor QCD”**

M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran and A. G. Williams  
AIP Conf. Proc. **1441**, 293 (2012).

*In the proceedings of The 19th Particles and Nuclei International Conference (PANIC11), Massachusetts Institute of Technology (MIT), Cambridge, USA. July 24–29, 2011.*

**123. “Quark-mass Flow of the Nucleon Mass Spectrum in Full QCD”**

M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran, A. G. Williams  
PoS **LATTICE 2011**, 127 (2011) 7 pp.

*In the proceedings of the 29th International Symposium on Lattice Field Theory (Lattice 2011), Squaw Valley, Lake Tahoe, California, USA, 10–16 July 2011*

**122. “The 1405-MeV Lambda Resonance in Full-QCD”**

B. J. Menadue, W. Kamleh, D. B. Leinweber and M. S. Mahbub  
PoS **LATTICE 2011**, 129 (2011) 7 pp.

*In the proceedings of the 29th International Symposium on Lattice Field Theory (Lattice 2011), Squaw Valley, Lake Tahoe, California, USA, 10–16 July 2011*

**121. “Magnetic properties of the Nucleon”**

T. Primer, M. Burkardt, W. Kamleh and D. Leinweber  
PoS **LATTICE 2011**, 170 (2011) 7 pp.

*In the proceedings of the 29th International Symposium on Lattice Field Theory (Lattice 2011), Squaw Valley, Lake Tahoe, California, USA, 10–16 July 2011*

**120. “Gluonic profile of static baryon at finite temperature and Y baryonic string”**

A. S. Bakry, D. B. Leinweber and A. G. Williams  
PoS **LATTICE 2011**, 256 (2011) 7 pp.

*In the proceedings of the 29th International Symposium on Lattice Field Theory (Lattice 2011), Squaw Valley, Lake Tahoe, California, USA, 10–16 July 2011*

**119. “SU(3) centre vortices underpin both confinement and dynamical chiral symmetry breaking”**

E. -A. O’Malley, W. Kamleh, D. Leinweber and P. Moran  
PoS **LATTICE 2011**, 257 (2011) 7 pp.

*In the proceedings of the 29th International Symposium on Lattice Field Theory (Lattice 2011), Squaw Valley, Lake Tahoe, California, USA, 10–16 July 2011*

**118. “Exploring excited states of the nucleon in 2+1 flavor lattice QCD”**

M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran and A. G. Williams  
AIP Conf. Proc. **1432**, 261 (2011).

*In the proceedings of The 8th International Workshop on the Physics of Excited Nucleons (Nstar2011), Jefferson Laboratory, Newport News, VA, USA. May 17–20, 2011.*

**117. “The Lambda(1405) in full QCD”**

B. J. Menadue, W. Kamleh, D. B. Leinweber and M. S. Mahbub  
AIP Conf. Proc. **1418**, 130 (2011).

*In the proceedings of 8th Circum-Pan-Pacific Symposium on High Energy Spin Physics (PacSPIN2011), Cairns, QLD, Australia, 20-24 June 2011.*

116. “**Magnetic properties of the proton and neutron**”  
 T. Primer, W. Kamleh and D. B. Leinweber  
 AIP Conf. Proc. **1354**, 216 (2011).  
*In the proceedings of the second T(r)opical QCD Workshop, Cairns, Australia, 26 Sept to 1 Oct 2010.*
115. “**Roper Resonance in 2+1 Flavor QCD**”  
 M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran and A. G. Williams  
 AIP Conf. Proc. **1354**, 32 (2011).  
*In the proceedings of the second T(r)opical QCD Workshop, Cairns, Australia, 26 Sept to 1 Oct 2010.*
114. “**Chiral effective field theory beyond the power-counting regime**”  
 J. M. M. Hall, D. B. Leinweber and R. D. Young  
 AIP Conf. Proc. **1354**, 78 (2011) 7 pp. [arXiv:1102.3735 [hep-lat]]  
*In the proceedings of the second T(r)opical QCD Workshop, Cairns, Australia, 26 Sept to 1 Oct 2010.*
113. “**The thermal delocalization of the flux tubes in mesons and baryons**”  
 A. S. Bakry, D. B. Leinweber and A. G. Williams  
 AIP Conf. Proc. **1354**, 178 (2011) 7 pp.  
*In the proceedings of the second T(r)opical QCD Workshop, Cairns, Australia, 26 Sept to 1 Oct 2010.*
112. “**Extracting Low-Lying Lambda Resonances Using Correlation Matrix Techniques**”  
 B. J. Menadue, W. Kamleh, D. B. Leinweber and M. S. Mahbub  
 AIP Conf. Proc. **1354**, 213 (2011) 7 pp. [arXiv:1102.3492 [hep-lat]]  
*In the proceedings of the second T(r)opical QCD Workshop, Cairns, Australia, 26 Sept to 1 Oct 2010.*
111. “**Proton wave functions in a uniform magnetic field**”  
 Dale S. Roberts, Patrick O. Bowman, Waseem Kamleh and Derek B. Leinweber  
 AIP Conf. Proc. **1354**, 224 (2011) 7 pp.  
*In the proceedings of the second T(r)opical QCD Workshop, Cairns, Australia, 26 Sept to 1 Oct 2010.*
110. “**Chiral behavior of baryon magnetic moments**”  
 D. B. Leinweber and R. D. Young  
 AIP Conf. Proc. **1261**, 128 (2010) 7 pp. [arXiv:1005.0326 [hep-lat]]  
*In the proceedings of the Workshop: Achievements and New Directions in Subatomic Physics, U. Adelaide, 15–19 Feb 2010 (2010).*
109. “**Shape of the proton in a uniform magnetic field**”  
 D. S. Roberts, P. O. Bowman, W. Kamleh and D. B. Leinweber  
 AIP Conf. Proc. **1261**, 135 (2010) 7 pp.  
*In the proceedings of the Workshop: Achievements and New Directions in Subatomic Physics, U. Adelaide, 15–19 Feb 2010 (2010).*
108. “**Wave function of the proton in a uniform magnetic field**”  
 D. S. Roberts, P. O. Bowman, W. Kamleh and D. B. Leinweber  
 PoS LATTICE **2010**, 328 (2010).

*In the proceedings of 28th International Symposium on Lattice Field Theory (Lattice 2010), Villasimius, Sardinia, Italy, 14–19 June 2010*

107. “**Excited States of the Nucleon in 2+1 Flavor QCD”**

M. S. Mahbub, W. Kamleh, D. B. Leinweber, P. J. Moran and A. G. Williams

PoS **LATTICE2010**, 112 (2010) 7 pp. [arXiv:1011.0480 [hep-lat]]

*In the proceedings of 28th International Symposium on Lattice Field Theory (Lattice 2010), Villasimius, Sardinia, Italy, 14–19 June 2010*

106. “**Role of the Wilson mass parameter in the overlap Dirac topological charge density”**

P. J. Moran, D. B. Leinweber and J. B. Zhang

PoS **LATTICE 2009**, 076 (2009) 7 pp. [arXiv:0910.2780 [hep-lat]]

*In the proceedings of 27th International Symposium on Lattice Field Theory (Lattice 2009), Beijing, China, 25–31 July 2009*

105. “**Impact of stout-link smearing in lattice fermion actions”**

P. J. Moran, P. O. Bowman, D. B. Leinweber, A. G. Williams and J. B. Zhang

PoS **LATTICE 2009**, 023 (2009) 7 pp. [arXiv:0910.2781 [hep-lat]]

*In the proceedings of 27th International Symposium on Lattice Field Theory (Lattice 2009), Beijing, China, 25–31 July 2009*

104. “**Low-lying positive-parity excited states of the nucleon”**

M. S. Mahbub, A. O. Cais, W. Kamleh, B. G. Lasscock, D. B. Leinweber and A. G. Williams

PoS **LATTICE 2009**, 118 (2009) 8 pp. [arXiv:0910.2789 [hep-lat]]

*In the proceedings of 27th International Symposium on Lattice Field Theory (Lattice 2009), Beijing, China, 25–31 July 2009*

103. “**The determination of  $\alpha_s(M_Z)$  from perturbative analyses of short-distance-sensitive lattice QCD observables revisited”**

K. Maltman, D. Leinweber, P. Moran and A. Sternbeck

PoS **LATTICE 2008**, 214 (2008) 5 pp. [arXiv:0812.2484 [hep-lat]]

*In the proceedings of 26th International Symposium on Lattice Field Theory (Lattice 2008), Williamsburg, Virginia, 14–20 Jul 2008*

102. “**A Fitting Robot for Variational Analysis”**

A. O. Cais, D. Leinweber, S. Mahbub and A. Williams

PoS **LATTICE 2008**, 137 (2008) 7 pp.

arXiv:0812.1872 [hep-lat]

*In the proceedings of 26th International Symposium on Lattice Field Theory (Lattice 2008), Williamsburg, Virginia, 14–20 Jul 2008*

101. “**Experiences in developing a node of an international computational physics data grid”**

Paul Coddington, Gerson Galang, Waseem Kamleh, Derek Leinweber, Sam Moskwa, Julia Patterson, Qiang Wang, Andrew Wendelborn, Shunde Zhang, Qunfang Zhang  
Proceedings of the Sixth Australasian Workshop on Grid Computing and e-research (ACM, 2008) 1, 10 pp.

*In the proceedings of Sixth Australasian Workshop on Grid Computing and e-research, Wollongong, Australia, 24 Jan 2008*

100. “**Towards selecting a finite-range regularization scale”**

R. D. Young, J. M. M. Hall and D. B. Leinweber

- arXiv:0907.0408 [hep-lat] 7 pp.  
*In the proceedings of QCD Downunder II, Massey University, Albany, New Zealand 17 - 19 January 2008*
99. “**Di-Quarks and Tri-Quarks on the Lattice**”  
A. I. Signal, F. R. P. Bissey and D. B. Leinweber  
arXiv:0806.0644 [hep-lat] 7 pp.  
*In the proceedings of QCD Downunder II, Massey University, Albany, New Zealand 17 - 19 January 2008*
98. “**Buried treasure in the sand of the QCD vacuum**”  
P. J. Moran and D. B. Leinweber  
arXiv:0805.4246 [hep-lat] 7 pp.  
*In the proceedings of QCD Downunder II, Massey University, Albany, New Zealand 17 - 19 January 2008*
97. “**Centre Vortices in SU(3)**”  
A. O. Cais, W. Kamleh, B. Lasscock, D. Leinweber, L. von Smekal and K. Langfeld  
PoS **LATTICE 2007**, 321 (2007) 7 pp.  
[arXiv:0710.2958 [hep-lat]]  
*In the proceedings of the 25th International Symposium on Lattice Field Theory, Regensburg, Germany, 30 Jul - 4 Aug 2007*
96. “**Comparing SU(2) to SU(3) gluodynamics on large lattices**”  
A. Sternbeck, L. von Smekal, D. B. Leinweber and A. G. Williams  
PoS **LATTICE 2007**, 340 (2007) 7 pp.  
[arXiv:0710.1982 [hep-lat]]  
*In the proceedings of the 25th International Symposium on Lattice Field Theory, Regensburg, Germany, 30 Jul - 4 Aug 2007*
95. “**Aspects of QCD Vacuum Structure**”  
P. J. Moran and D. B. Leinweber  
PoS **LATTICE 2007**, 383 (2007) 7 pp.  
[arXiv:0710.2380 [hep-lat]]  
*In the proceedings of the 25th International Symposium on Lattice Field Theory, Regensburg, Germany, 30 Jul - 4 Aug 2007*
94. “**Some Recent Lattice QCD Results From The CSSM**”  
S. Boinpolli, P. O. Bowman, U. M. Heller, W. Kamleh, J. N. Hedditch, B. G. Lasscock, D. B. Leinweber, A. G. Williams, J. M. Zanotti, J. B. Zhang  
Int. J. Mod. Phys. A **22**, 5053 (2007) 9 pp.  
*Prepared for Festschrift in Honour of Bruce McKellar and Girish Joshi, Melbourne, Australia, 29-30 Nov 2006*
93. “**Exotic Hadrons On The Lattice**”  
B. G. Lasscock, D. B. Leinweber and A. G. Williams  
Prog. Theor. Phys. Suppl. **168**, 36 (2007) 9 pp.  
*Prepared for YKIS Seminar on New Frontiers in QCD: Exotic Hadrons and Hadronic Matter, Kyoto, Japan, 20 Nov - 8 Dec 2006*

92. “**Vector meson electromagnetic form factors**”  
 B. G. Lasscock, J. N. Hedditch, D. B. Leinweber and A. G. Williams  
*PoS LAT2006*, 114 (2006) 7 pp.  
 [arXiv:hep-lat/0611029]  
*Prepared for 24th International Symposium on Lattice Field Field: Lattice 2006, Tucson, Arizona, USA, July 23–28 2006. 2005*
91. “**Light quark electromagnetic structure of baryons**”  
 S. Boinepalli, J. N. Hedditch, B. G. Lasscock, D. B. Leinweber, A. G. Williams, J. M. Zanotti and J. B. Zhang  
*PoS LAT2006*, 124 (2006) 7 pp.  
 [arXiv:hep-lat/0611028]  
*Prepared for 24th International Symposium on Lattice Field Field: Lattice 2006, Tucson, Arizona, USA, July 23–28 2006. 2005*
90. “**Effects of dynamical FLIC fermions in the quark and gluon propagator**”  
 Waseem Kamleh, Patrick O. Bowman, Derek B. Leinweber, Anthony G. Williams and Jianbo Zhang  
*Nucl. Phys. B (Proc. Supp.)* **161**, 109 (2006) 7 pp.  
*Prepared for the joint CSSM, NITP and International Light Cone Advisory Committee (ILCAC) Workshop, Cairns, Australia, 7–15 July 2005.*
89. “**Role of centre vortices in dynamical mass generation**”  
 Derek B. Leinweber, Patrick O. Bowman, Urs M. Heller, Daniel-Jens Kusterer, Kurt Langfeld and Anthony G. Williams  
*Nucl. Phys. B (Proc. Supp.)* **161**, 130 (2006) 6 pp.  
*Prepared for the joint CSSM, NITP and International Light Cone Advisory Committee (ILCAC) Workshop, Cairns, Australia, 7–15 July 2005.*
88. “**QCD Propagators: Some Results from the Lattice**”  
 Patrick O. Bowman, Urs M. Heller, Derek B. Leinweber, Maria B. Parappilly and Anthony G. Williams  
*Nucl. Phys. B (Proc. Supp.)* **161**, 27 (2006) 7 pp.  
*Prepared for the joint CSSM, NITP and International Light Cone Advisory Committee (ILCAC) Workshop, Cairns, Australia, 7–15 July 2005.*
87. “**Some Recent Research Highlights From The CSSM**”  
 B. G. Lasscock, J. Hedditch, M. B. Parappilly, D. B. Leinweber and A. G. Williams  
*Nucl. Phys. Proc. Suppl.* **161**, 248 (2006) 8 pp.  
*Prepared for the joint CSSM, NITP and International Light Cone Advisory Committee (ILCAC) Workshop, Cairns, Australia, 7–15 July 2005.*
86. “**Effects of dynamical sea-quarks on quark and gluon propagators**”  
 M. B. Parappilly, P. O. Bowman, U. M. Heller, D. B. Leinweber, A. G. Williams and J. B. Zhang  
*AIP Conf. Proc.* **842**, 237 (2006) 3 pp.  
 [arXiv:hep-lat/0601010]  
*In the proceedings of Particles and Nuclei International Conference (PANIC05), Santa Fe, NM, USA, 24–28 October 2005.*
85. “**Scale-free avalanche dynamics in the stockmarket**”  
 M. Bartolozzi, D. B. Leinweber, A. W. Thomas  
*Physica A* **370**, 132 (2006) 8 pp. [arXiv:physics/0601171]

*In the proceedings of the Econophysics Colloquium, Australian National University, Canberra, Australia, 14-18 November 2005.*

84. “**Lattice QCD Studies of Pentaquarks and Exotics**”

B. G. Lasscock, J. Hedditch, W. Kamleh, D. B. Leinweber, W. Melnitchouk, A. W. Thomas, A. G. Williams, R. D. Young and J. M. Zanotti

Nucl. Phys. Proc. Suppl. **153**, 348 (2006) 6 pp.

*Talk given at Workshop on Computational Hadron Physics (Hadron Physics 13), Nicosia, Cyprus, 14-17 Sep 2005*

83. “**Scale-free networks in complex systems**”

M. Bartolozzi, D.B. Leinweber, T. Surungan, A.W. Thomas and A.G. Williams

Proceedings of SPIE, **6039**, 249 (2005) 9 pp. [arXiv:cond-mat/0511273]

*In the proceedings of the SPIE International Symposium on Microelectronics, MEMS, and Nanotechnology, University of Brisbane, Brisbane, Australia, 11-15 December 2005.*

82. “**Spin-3/2 pentaquark resonance signature**”

B. G. Lasscock, D. B. Leinweber, A. G. Williams, W. Kamleh, W. Melnitchouk, A. W. Thomas, R. D. Young and J. M. Zanotti

PoS **LAT2005**, 067 (2005) 6 pp.

*Prepared for 23rd International Symposium on Lattice Field Field: Lattice 2005, Trinity College, Dublin, Ireland, 25-30 Jul 2005*

81. “**Light-quark FLIC fermion simulations of the 1+- exotic meson**”

J. N. Hedditch, B. G. Lasscock, D. B. Leinweber, A. G. Williams, W. Kamleh and J. M. Zanotti

PoS **LAT2005**, 040 (2005) 6 pp. [arXiv:hep-lat/0510103]

*Talk given at 23rd International Symposium on Lattice Field Field: Lattice 2005, Trinity College, Dublin, Ireland, 25-30 Jul 2005*

80. “**Chiral and continuum extrapolation of partially-quenched hadron masses**”

C. R. Allton, W. Armour, D. B. Leinweber, A. W. Thomas and R. D. Young

PoS **LAT2005**, 049 (2005) 6 pp. [arXiv:hep-lat/0511004]

*Contributed to 23rd International Symposium on Lattice Field Field: Lattice 2005, Trinity College, Dublin, Ireland, 25-30 Jul 2005*

79. “**Power counting regime of chiral extrapolation and beyond**”

D. B. Leinweber, A. W. Thomas and R. D. Young

PoS **LAT2005**, 048 (2005) 6 pp. [arXiv:hep-lat/0510070]

*Contributed to 23rd International Symposium on Lattice Field Field: Lattice 2005, Trinity College, Dublin, Ireland, 25-30 Jul 2005*

78. “**Scaling of nonperturbative renormalization of composite operators with overlap fermions**”

J. B. Zhang, D. B. Leinweber and A. G. Williams

Int. J. Mod. Phys. A (2005) 4 pp. [arXiv:hep-lat/0509050]

*Talk given at International Conference on QCD and Hadronic Physics, Beijing, China, 16-20 June 2005*

77. “**Finite volume dependence of hadron properties and lattice QCD**”

A. W. Thomas, J. D. Ashley, D. B. Leinweber and R. D. Young

J. Phys. Conf. Ser. **9**, 321 (2005) 10 pp. [arXiv:hep-lat/0502002]

*Invited talk at 1st Meeting of the APS Topical Group on Hadronic Physics (GHP2004), Batavia, Illinois, 24-26 Oct 2004*

76. “**Extrapolation of lattice QCD results beyond the power-counting regime**”  
D. B. Leinweber, A. W. Thomas and R. D. Young  
*Nucl. Phys. A* **755**, 59 (2005) 12 pp.  
[arXiv:hep-lat/0501028]  
*Presented at Baryons '04, International Conference on the Structure of Baryons, Ecole Polytechnique, Palaiseau, France, October 25-29, 2004*
75. “**Systematic uncertainties in the precise determination of the strangeness magnetic moment of the nucleon**”  
D. B. Leinweber, S. Boinepalli, A. W. Thomas, A. G. Williams, R. D. Young, J. B. Zhang and J. M. Zanotti  
*Eur. Phys. J. A* **24**, S2.79 (2005) 6 pp. [arXiv:hep-lat/0502004]  
*Invited talk at International Workshop on Parity Violation and Hadronic Structure (PAVI04), Grenoble, France, 8-11 June 2004*
74. “**The Hamiltonian Limit Of (3+1)D SU(3) Lattice Gauge Theory**”  
T. M. R. Byrnes, M. Loan, C. J. Hamer, F. D. R. Bonnet, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
*Nucl. Phys. Proc. Suppl.* **141**, 253 (2005) 6 pp.  
*Prepared for Workshop on QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
73. “**Quark-gluon vertex in arbitrary kinematics**”  
J. I. Skullerud, P. O. Bowman, A. Kizilersu, D. B. Leinweber and A. G. Williams  
*Nucl. Phys. B (Proc. Suppl.)* **141**, 244 (2005) 6 pp. [arXiv:hep-lat/0408032]  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
72. “**Chiral SU(3) quark mean-field model for hadronic systems**”  
P. Wang, D. B. Leinweber, A. W. Thomas and A. G. Williams  
*Nucl. Phys. B (Proc. Suppl.)* **141**, 273 (2005) 6 pp.  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
71. “**Finite-range regularisation and chiral extrapolation**”  
R. D. Young, D. B. Leinweber and A. W. Thomas  
*Nucl. Phys. B (Proc. Suppl.)* **141**, 233 (2005) 5 pp.  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
70. “**Overlap quark propagator in Landau and Laplacian gauges**”  
J. B. Zhang, P. O. Bowman, R. J. Coad, U. M. Heller, D. B. Leinweber and A. G. Williams  
*Nucl. Phys. B (Proc. Suppl.)* **141**, 15 (2005) 7 pp.  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
69. “**Properties of the FLIC Overlap Quark Propagator**”  
W. Kamleh, P. O. Bowman, D. B. Leinweber, A. G. Williams and J. B. Zhang  
*Nucl. Phys. B (Proc. Suppl.)* **141**, 217 (2005) 6 pp.  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*

68. “**FLIC Mesons: Hybrids and Exotics**”  
 J. N. Hedditch , B. G. Lasscock, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
*Nucl. Phys. B (Proc. Suppl.)* **141**, 43 (2005) 4 pp.  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
67. “**Gluon field distribution in baryons**”  
 F. Bissey, F-G. Cao, A. Kitson, B. G. Lasscock, D. B. Leinweber, A. I. Signal, A. G. Williams and J. M. Zanotti  
*Nucl. Phys. B (Proc. Suppl.)* **141**, 22 (2005) 4 pp. [arXiv:hep-lat/0501004]  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
66. “**Systematic uncertainties in the precise determination of the strangeness magnetic moment of the nucleon**”  
 D. B. Leinweber, S. Boinepalli, A. W. Thomas, A. G. Williams, R. D. Young, J. B. Zhang and J. M. Zanotti  
*Nucl. Phys. Proc. Suppl.* **141**, 287 (2005) 8 pp.  
*Talk presented at QCD Down Under, Barossa Valley and Adelaide, Australia, 10-19 Mar 2004*
65. “**Towards a connection between nuclear structure and QCD**”  
 A. W. Thomas, P. A. M. Guichon, D. B. Leinweber and R. D. Young  
*Prog. Theor. Phys. Suppl.* **156**, 124 (2004) 13 pp. [arXiv:nucl-th/0411014]  
*Lectures given at 18th Nishinomiya-Yukawa Memorial Symposium on Strangeness in Nuclear Matter, Nishinomiya, Japan, 4-5 Dec 2003*
64. “**Infrared and ultraviolet properties of the Landau gauge quark propagator**”  
 P. O. Bowman, U. M. Heller, D. B. Leinweber, A. G. Williams and J. b. Zhang  
*Nucl. Phys. Proc. Suppl.* **128**, 23 (2004) 7 pp. [arXiv:hep-lat/0403002]  
*Contributed to 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*
63. “**Dynamical fat link fermions**”  
 W. Kamleh, D. B. Leinweber and A. G. Williams  
*Nucl. Phys. Proc. Suppl.* **128**, 96 (2004) 4 pp. [arXiv:hep-lat/0402036]  
*Contributed to the proceedings of 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*
62. “**Electromagnetic form factors with FLIC fermions**”  
 J. M. Zanotti, S. Boinepalli, D. B. Leinweber, A. G. Williams and J. B. Zhang  
*Nucl. Phys. Proc. Suppl.* **128**, 233 (2004) 7 pp. [arXiv:hep-lat/0401029]  
*Presented at 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*
61. “**Looking inside the quark-gluon vertex**”  
 J. I. Skullerud, A. Kizilersu, P. O. Bowman, D. B. Leinweber and A. G. Williams  
*Nucl. Phys. Proc. Suppl.* **128**, 117 (2004) 8 pp.  
*Prepared for 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*
60. “**Hybrid Meson Spectrum from the FLIC action**”  
 J. N. Hedditch, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
*Nucl. Phys. Proc. Suppl.* **128**, 221 (2004) 6 pp. [arXiv:hep-lat/0402016]

*Talk given at 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*

59. “**Strangeness Magnetic Moment of the Nucleon from FLIC Fermions**”  
D. B. Leinweber, S. Boinepalli, A. W. Thomas, A. G. Williams, R. D. Young, J. M. Zanotti, J. B. Zhang  
Nucl. Phys. Proc. Suppl. **128**, 132-140 (2004) 9 pp. [arXiv:hep-lat/0406003]  
*Preliminary analysis presented at the 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*
58. “**Nonperturbative renormalisation of composite operators with overlap quarks**”  
J. B. Zhang, D. B. Leinweber, K. F. Liu and A. G. Williams [CSSM Lattice collaboration]  
Nucl. Phys. Proc. Suppl. **128**, 240 (2004) 8 pp. [arXiv:hep-lat/0311030]  
*Talk given at 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*
57. “**Chiral extrapolation and physical insights**”  
R. D. Young, D. B. Leinweber and A. W. Thomas  
Nucl. Phys. Proc. Suppl. **128**, 227 (2004) 6 pp. [arXiv:hep-lat/0311038]  
*Presented at 2nd Cairns Topical Workshop on Lattice Hadron Physics 2003 (LHP 2003), Cairns, Australia, 22-30 Jul 2003*
56. “**Hybrid and Exotic Mesons from FLIC Fermions**”  
J. N. Hedditch, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
Nucl. Phys. Proc. Suppl. **129**, 248 (2004) 3 pp. [arXiv:hep-lat/0309119]  
*Presented at the 21st International Symposium on Lattice Field Theory (LATTICE 2003), Tsukuba, Ibaraki, Japan, 15-19 Jul 2003*
55. “**Dynamical FLIC Fermions**”  
W. Kamleh, D. B. Leinweber and A. G. Williams  
Nucl. Phys. Proc. Suppl. **129**, 826 (2004) 3 pp. [arXiv:hep-lat/0309154]  
*Presented at the 21st International Symposium on Lattice Field Theory (LATTICE 2003), Tsukuba, Ibaraki, Japan, 15-19 Jul 2003*
54. “**Scaling behavior of the Landau Gauge Overlap Quark Propagator**”  
J. Zhang, F. D. Bonnet, P. Bowman, D. B. Leinweber, A. G. Williams  
Nucl. Phys. Proc. Suppl. **129**, 495 (2004) 3 pp.  
*Presented at the 21st International Symposium on Lattice Field Theory (LATTICE 2003), Tsukuba, Ibaraki, Japan, 15-19 Jul 2003*
53. “**Electromagnetic Form Factors with FLIC Fermions**”  
J. M. Zanotti, D. B. Leinweber, A. G. Williams and J. B. Zhang  
Nucl. Phys. Proc. Suppl. **129**, 287 (2004) 3 pp. [arXiv:hep-lat/0309186]  
*Presented at the 21st International Symposium on Lattice Field Theory (LATTICE 2003), Tsukuba, Ibaraki, Japan, 15-19 Jul 2003*
52. “**Chiral Structure in Baryon Magnetic Moments**”  
R. D. Young, D. B. Leinweber and A. W. Thomas  
Nucl. Phys. Proc. Suppl. **129**, 290 (2004) 3 pp. [arXiv:hep-lat/0309187]  
*Presented at the 21st International Symposium on Lattice Field Theory (LATTICE 2003), Tsukuba, Ibaraki, Japan, 15-19 Jul 2003*

51. “**Nucleon Electromagnetic Form Factors from Lattice QCD**”  
 J. D. Ashley, D. B. Leinweber, A. W. Thomas and R. D. Young  
*Eur. Phys. J. A* **19**, 9 (2004) 6 pp. [arXiv:hep-lat/0308024]  
*Presented at ICTP 4th International Conference on Perspectives in Hadronic Physics, Trieste, Italy, 12-16 May 2003*
50. “**Observing Chiral Nonanalytic Behavior with FLIC Fermions**”  
 D. B. Leinweber, A. W. Thomas, A. G. Williams, R. D. Young, J. M. Zanotti and J. B. Zhang  
*Nucl. Phys. A* **737**, 177 (2004) 5 pp. [arXiv:nucl-th/0308083]  
*Invited presentation at the 17th International IUPAP Conference on Few-Body Problems in Physics (FB 17), Durham, North Carolina, 5-10 Jun 2003*
49. “**Nucleon resonances from FLIC fermions**”  
 D. B. Leinweber, J. N. Hedditch, W. Melnitchouk, A. G. Williams and J. M. Zanotti  
*Prog. Theor. Phys. Suppl.* **151**, 138 (2003) 5 pp.  
*Prepared for Tokyo - Adelaide Joint Workshop on Quarks, Astrophysics and Space Physics, Tokyo, Japan, 6-10 Jan 2003*
48. “**Progress in the calculation of nucleon form factors and parton distribution functions**”  
 A. W. Thomas, J. D. Ashley, W. Detmold, D. B. Leinweber, W. Melnitchouk and R. D. Young  
*Nucl. Phys. A* **721**, 915C (2003) 7 pp.  
*Presented at the 16th International Conference on Particles and Nuclei (PANIC 02), Osaka, Japan, 30 Sep - 4 Oct 2002*
47. “**QCD and Hadron Structure**”  
 A. W. Thomas, D. B. Leinweber, R. D. Young and S. V. Wright  
*Mod. Phys. Lett. A* **18**, 347 (2003) 9 pp.  
*Presented at the 2nd Asia Pacific Conference on Few-Body Problems in Physics (APFB 02), Shanghai, China, 27-30 Aug 2002*
46. “**Light Quark Simulations with FLIC Fermions**”  
 J. M. Zanotti, D. B. Leinweber, W. Melnitchouk, A. G. Williams and J. B. Zhang  
*Nucl. Phys. Proc. Suppl.* **119**, 290 (2003) 3 pp. [arXiv:hep-lat/0210041]  
*Presented at the 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*
45. “**Excited Baryons from the FLIC Fermion Action**”  
 W. Melnitchouk, J. N. Hedditch, D. B. Leinweber, A. G. Williams, J. M. Zanotti and J. B. Zhang  
*Nucl. Phys. Proc. Suppl.* **119**, 293 (2003) 3 pp. [arXiv:hep-lat/0210042]  
*Presented at the 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*
44. “**Spin-3/2 Baryons in Lattice QCD**”  
 J. M. Zanotti, S. Choe, D. B. Leinweber, W. Melnitchouk, A. G. Williams and J. B. Zhang  
*Nucl. Phys. Proc. Suppl.* **119**, 299 (2003) 3 pp. [arXiv:hep-lat/0210043]  
*Presented at 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*
43. “**Chiral Nonanalytic Behaviour: The Edinburgh plot**”  
 S. V. Wright, D. B. Leinweber and A. W. Thomas  
*Nucl. Phys. Proc. Suppl.* **119**, 236 (2003) 3 pp. [arXiv:hep-lat/0209024]

*Presented at the 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*

**42. “Panel Discussion on Chiral Extrapolation of Physical Observables”**

C. Bernard, S. Hashimoto, D. B. Leinweber, P. Lepage, E. Pallante, S. R. Sharpe and H. Wittig  
Nucl. Phys. Proc. Suppl. **119**, 170 (2003) 15 pp. [arXiv:hep-lat/0209086]

*Presented at the 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*

**41. “Modelling the Quark Propagator”**

P. O. Bowman, U. M. Heller, D. B. Leinweber and A. G. Williams  
Nucl. Phys. Proc. Suppl. **119**, 323 (2003) 3 pp. [arXiv:hep-lat/0209129]

*Presented at the 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*

**40. “FLIC Overlap Fermions”**

W. Kamleh, D. B. Leinweber, A. G. Williams and J. B. Zhang  
Nucl. Phys. Proc. Suppl. **119**, 825 (2003) 3 pp. [arXiv:hep-lat/0209155]

*Presented at the 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*

**39. “FLIC-Overlap Fermions and Topology”**

W. Kamleh, D. J. Kusterer, D. B. Leinweber and A. G. Williams  
Nucl. Phys. Proc. Suppl. **119**, 828 (2003) 3 pp. [arXiv:hep-lat/0209156]

*Presented at the 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*

**38. “Towards the Continuum Limit of the Overlap Quark Propagator in Landau Gauge”**

J. B. Zhang, F. D. R. Bonnet, P. O. Bowman, D. B. Leinweber and A. G. Williams  
Nucl. Phys. Proc. Suppl. **119**, 831 (2003) 3 pp. [arXiv:hep-lat/0208037]

*Presented at 20th International Symposium on Lattice Field Theory (LATTICE 2002), Boston, Massachusetts, 24-29 Jun 2002*

**37. “FLIC Fermions and Hadron Phenomenology”**

D. B. Leinweber, J. N. Hedditch, W. Melnitchouk, A. W. Thomas, A. G. Williams, R. D. Young, J. M. Zanotti and J. B. Zhang

Eur. Phys. J. A **18**, 247–252 (2003) 6 pp. [arXiv:nucl-th/0211014]

*Invited plenary session talk at the International Conference on Quarks and Nuclear Physics (QNP 2002), Julich, Germany, 9-14 Jun 2002*

**36. “Recent Developments in Quark Nuclear Physics”**

A. W. Thomas, D. B. Leinweber and R. D. Young  
Eur. Phys. J. A **18**, 241 (2003) 5 pp.

*Invited plenary session talk at the International Conference on Quarks and Nuclear Physics (QNP 2002), Julich, Germany, 9-14 Jun 2002*

**35. “Quenched Chiral Physics in Baryon Masses”**

R. D. Young, D. B. Leinweber, A. W. Thomas and S. V. Wright  
(World Scientific, 2002) 155–163 9 pp. [arXiv:nucl-th/0211026]

*Presented at the Joint CSSM / JHF / NITP Workshop on Physics at the Japan Hadron Facility, Adelaide, Australia, 14-21 Mar 2002*

34. “**Baryon Resonance Phenomenology**”  
 I. C. Cloet, D. B. Leinweber and A. W. Thomas  
 (World Scientific, 2002) 125–135 10 pp. [arXiv:nucl-th/0211027]  
*Presented at the Joint CSSM / JHF / NITP Workshop on Physics at the Japan Hadron Facility, Adelaide, Australia, 14-21 Mar 2002*
33. “**Hadron Masses from Novel Fat-Link Fermion Actions**”  
 J. M. Zanotti, S. Bilson-Thompson, F. D. R. Bonnet, D. B. Leinweber, A. G. Williams, J. B. Zhang, W. Melnitchouk, and F. X. Lee  
 pp. 174–183 (World Scientific, 2002) 10 pp.  
*Presented at the Joint CSSM / JHF / NITP Workshop on Physics at the Japan Hadron Facility, Adelaide, Australia, 14-21 Mar 2002.*
32. “**Quark Propagator in a Covariant Gauge**”  
 F. D. Bonnet, D. B. Leinweber, A. G. Williams, J. M. Zanotti and J. B. Zhang  
 Nucl. Phys. Proc. Suppl. **109**, 158 (2002) 5 pp. [arXiv:hep-lat/0202011]  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
31. “**Novel Fat-Link Fermion Actions**”  
 J. M. Zanotti, S. Bilson-Thompson, F. D. R. Bonnet, P. D. Coddington, D. B. Leinweber, A. G. Williams, J. B. Zhang, W. Melnitchouk, and F. X. Lee  
 Nucl. Phys. Proc. Suppl. **109**, 101 (2002) 5 pp. [arXiv:hep-lat/0201004]  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
30. “**Baryon Resonances from a Novel Fat-Link Fermion Action**”  
 W. Melnitchouk, J. N. Hedditch, D. B. Leinweber, A. G. Williams, J. M. Zanotti and J. B. Zhang  
 Nucl. Phys. Proc. Suppl. **109**, 96 (2002) 5 pp. [arXiv:hep-lat/0201005]  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
29. “**Chiral Behaviour of Baryon Masses in Quenched Lattice QCD**”  
 R. D. Young, D. B. Leinweber, A. W. Thomas and S. V. Wright  
 Nucl. Phys. Proc. Suppl. **109A**, 55 (2002) 5 pp.  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
28. “**Overlap Fermions, Improved Cooling and the Lattice Index Theorem**”  
 J. B. Zhang, S. O. Bilson-Thompson, F. D. Bonnet, D. B. Leinweber, A. G. Williams and J. M. Zanotti  
 Nucl. Phys. Proc. Suppl. **109A**, 146 (2002) 5 pp.  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
27. “**Quenched Chiral Perturbation Theory for Baryon Form Factors**”  
 D. B. Leinweber  
 Nucl. Phys. Proc. Suppl. **109**, 45 (2002) 5 pp. [arXiv:hep-lat/0112021]  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
26. “**Cooling for Instantons and the Wrath of Nahm**”  
 S. Bilson-Thompson, F. D. Bonnet, D. B. Leinweber and A. G. Williams  
 Nucl. Phys. Proc. Suppl. **109**, 116 (2002) 5 pp. [arXiv:hep-lat/0112034]  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*

25. “**Improving the Low-Lying Spectrum of the Overlap Kernel**”  
 W. Kamleh, D. Adams, D. B. Leinweber and A. G. Williams  
*Nucl. Phys. Proc. Suppl.* **109**, 81 (2002) 5 pp. [arXiv:hep-lat/0112042]  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
24. “**Hadron Mass Extraction from Lattice QCD**”  
 S. V. Wright, D. B. Leinweber, A. W. Thomas and K. Tsushima  
*Nucl. Phys. Proc. Suppl.* **109**, 50 (2002) 5 pp. [arXiv:hep-lat/0111053]  
*Presented at the Workshop on Lattice Hadron Physics, Cairns, Australia, 9-18 Jul 2001*
23. “ **$N^*$  Masses from an Anisotropic Lattice QCD Action**”  
 F. X. Lee, D. B. Leinweber, L. Zhou, J. M. Zanotti and S. Choe  
*Nucl. Phys. Proc. Suppl.* **106**, 248 (2002) 3 pp. [arXiv:hep-lat/0110164]  
*Presented at the 19th International Symposium on Lattice Field Theory (Lattice 2001), Berlin, Germany, 19-24 Aug 2001*
22. “**A New Slant on Hadron Structure**”  
 W. Detmold, D. B. Leinweber, W. Melnitchouk, A. W. Thomas and S. V. Wright.  
*Pramana* **57**, 251 (2001) 12 pp. [arXiv:nucl-th/0104043]  
*Presented at the International Symposium on Nuclear Physics (ISNP2K), Trombay, Mumbai, India, 18-22 Dec 2000*
21. “**Lattice QCD Calculations of Hadron Structure: Constituent Quarks and Chiral Symmetry**”  
 D.B. Leinweber and A.W. Thomas.  
*Nucl. Phys.* **A684**, 35–43 (2000) 9 pp. [arXiv:nucl-th/0007058]  
*Presented at Few Body 2000, XVIth IUPAP International Conference on Few-Body Problems in Physics, National Taiwan University, Taipei, Taiwan, March 6–10, 2000, edited by T.-S.H. Lee and S.N. Yang.*
20. “**The Sigma Commutator from Lattice QCD**”  
 S. V. Wright, D. B. Leinweber and A. W. Thomas.  
*Nucl. Phys.* **A680**, 137 (2000) 4 pp. [arXiv:nucl-th/0005003]  
*Presented at QNP 2000, International Conference on Quark Nuclear Physics, CSSM, Adelaide, Australia, February 21–25, 2000, edited by C. Boros and A.W. Thomas.*
19. “**Theoretical Perspective on the Strangeness Magnetic Form Factor**”  
 D.B. Leinweber and A.W. Thomas.  
*Nucl. Phys.* **A680**, 117 (2000) 8 pp.  
*Presented at QNP 2000, International Conference on Quark Nuclear Physics, CSSM, Adelaide, Australia, February 21–25, 2000, edited by C. Boros and A.W. Thomas.*
18. “**Visualizations of the QCD Vacuum**”  
 D.B. Leinweber.  
 “Adelaide 1999, Light-cone QCD and Nonperturbative Hadron Physics,” pp. 138–143, (World Scientific, 2000) 6 pp. [arXiv:hep-lat/0004025]  
*Presented at Light-Cone ’99, Workshop on Light-Cone QCD and Nonperturbative Hadron Physics, CSSM, Adelaide, Australia, December 13–22, 1999, edited by A. Schreiber, A.G. Williams and A.W. Thomas.*
17. “**Gluon and Quark Propagators in Landau Gauge from the Lattice**”  
 A. G. Williams, P. O. Bowman, F. D. Bonnet, D. B. Leinweber and J. I. Skullerud.

“Adelaide 1999, Light-cone QCD and Nonperturbative Hadron Physics,” pp. 159–164, (World Scientific, 2000) 6 pp. [arXiv:hep-lat/0004025]

*Presented at Light-Cone ’99, Workshop on Light-Cone QCD and Nonperturbative Hadron Physics, CSSM, Adelaide, Australia, December 13–22, 1999, edited by A. Schreiber, A.G. Williams and A.W. Thomas.*

**16. “Baryon Mass Extrapolation”**

D.B. Leinweber, A.W. Thomas, K. Tsushima and S.V. Wright.

Nucl. Phys. Proc. Suppl. **83**, 179 (2000) 3 pp. [arXiv:hep-lat/9909109]

*In Lattice ’99, Proceedings of the International Symposium, in Pisa, Italy, 28 June – 3 July 1999, edited by A. Di Giacomo et al..*

**15. “Improved Landau Gauge Fixing and Discretisation Errors”**

F.D.R. Bonnet, P.O. Bowman, D.B. Leinweber, D.G. Richards and A.G. Williams.

Nucl. Phys. Proc. Suppl. **83**, 905–907 (2000) 3 pp. [arXiv:hep-lat/9909110]

*In Lattice ’99, Proceedings of the International Symposium, in Pisa, Italy, 28 June – 3 July 1999, edited by A. Di Giacomo et al..*

**14. “Chiral Corrections to Baryon Masses Calculated within Lattice QCD”**

A.W. Thomas, D.B. Leinweber, K. Tsushima and S.V. Wright.

Nucl. Phys. **A663 & 664**, 973 (2000) 4 pp. [arXiv:nucl-th/9909041]

*Presented at PANIC 99, International Conference on Particles and Nuclei, at Uppsala University, Sweden, 10–16 June 1999.*

**13. “Not Strange but Bizarre Physics from the SAMPLE Experiment”**

D. B. Leinweber.

“Adelaide 1998, Future Directions in Quark Nuclear Physics,” pp. 121–130, (World Scientific, 1999) 10 pp. [arXiv:nucl-th/9809050]

*Presented at Future Directions in Quark Nuclear Physics, at the CSSM, U. Adelaide, SA, 10–20 March 1998, edited by A.W. Thomas and K. Tsushima.*

**12. “Improved Lattice QCD Actions for Hadron Phenomenology”**

D. B. Leinweber and F. X. Lee.

“Adelaide 1998, Nonperturbative Methods in Quantum Field Theory,” pp. 239–248 (World Scientific, 1999) 10 pp. [arXiv:hep-lat/9809119]

*Presented at Nonperturbative Methods in Quantum Field Theory, at the CSSM, U. Adelaide, SA, 2–13 February 1998, edited by A.W. Schreiber, A.G. Williams, and A.W. Thomas.*

**11. “The Infrared Behaviour of the Gluon Propagator from Lattice QCD”**

D. B. Leinweber, J. I. Skullerud, and A. G. Williams.

“Adelaide 1998, Nonperturbative Methods in Quantum Field Theory,” pp. 97–103, (World Scientific, Singapore, 1999) 7 pp. [arXiv:hep-lat/9808033]

*Presented at Nonperturbative Methods in Quantum Field Theory, at the CSSM, U. Adelaide, SA, 2–13 February 1998, edited by A.W. Schreiber, A.G. Williams, and A.W. Thomas.*

**10. “Negative-Parity Baryon Spectroscopy”**

F. X. Lee and D. B. Leinweber.

Nucl. Phys. Proc. Suppl. **73** 258 (1998) 3 pp. [arXiv:hep-lat/9809095]

*In Lattice ’98, Proceedings of the International Symposium, in Boulder, CO, 1998, edited by T. De-Grand, C. DeTar, R. Sugar, and D. Toussaint.*

9. “**Structure of the Gluon Propagator**”  
D. B. Leinweber, C. Parrinello, J. I. Skullerud, and A. G. Williams.  
*Nucl. Phys. Proc. Suppl.* **73** 626 (1998) 3 pp. [arXiv:hep-lat/9809030]  
*In Lattice '98, Proceedings of the International Symposium, in Boulder, CO, 1998, edited by T. De-Grand, C. DeTar, R. Sugar, and D. Toussaint.*
  
8. “**Modeling the Gluon Propagator**”  
D. B. Leinweber, C. Parrinello, J. I. Skullerud, and A. G. Williams.  
*Nucl. Phys. Proc. Suppl.* **73** 629 (1998) 3 pp. [arXiv:hep-lat/9809031]  
*In Lattice '98, Proceedings of the International Symposium, in Boulder, CO, 1998, edited by T. De-Grand, C. DeTar, R. Sugar, and D. Toussaint.*
  
7. “**Essential Strangeness in Nucleon Magnetic Moments**”  
Derek B. Leinweber.  
*Nucl. Phys.* **A585**, 341 (1995) 2 pp. [arXiv:nucl-th/9407039]  
*Presented at HYP94, International Conference on Hypernuclear and Strange Particle Physics, in Vancouver, BC, July 4–8, 1994.*
  
6. “**Hadron Electromagnetic Structure: Shedding Light on Models and their Mechanisms**”  
Derek B. Leinweber.  
*Nucl. Phys. Proc. Suppl.* **34**, 383 (1994) 3 pp. [arXiv:hep-ph/9402228]  
*Presented at Lattice '93, International Symposium on Lattice Field Theory, in Dallas, Texas, October 12–16, 1993.*
  
5. “**A Few Points on Point-to-Point Correlation Functions**”  
Derek B. Leinweber.  
*Nucl. Phys. Proc. Suppl.* **34**, 407 (1994) 4 pp. [arXiv:hep-lat/9401005]  
*Presented at Lattice '93, International Symposium on Lattice Field Theory, Dallas, Texas, October 12–16, 1993.*
  
4. “**Nucleon and Hyperon Electromagnetic Transitions**”  
Terrence Draper, Derek B. Leinweber and R.M. Woloshyn.  
*Nucl. Phys. Proc. Suppl.* **30**, 427 (1993) 4 pp.  
*In the proceedings of Lattice 92, International Symposium on Lattice Field Theory, in Amsterdam, The Netherlands, September 15–19, 1992.*
  
3. “**Multipole Moments of Spin-3/2 Baryons**”  
Terrence Draper, Derek B. Leinweber and R.M. Woloshyn.  
*Nucl. Phys. Proc. Suppl.* **B26**, 403 (1992) 3 pp.  
*In the proceedings of Lattice 91, International Symposium on Lattice Field Theory, at the National Laboratory for High Energy Physics, Tsukuba, Japan, November 5–9, 1991.*
  
2. “**On the electromagnetic properties of the baryon octet**”  
Derek B. Leinweber, R.M. Woloshyn and Terrence Draper.  
*Nucl. Phys. Proc. Suppl.* **B20**, 463 (1991) 4 pp.  
*In the proceedings of Lattice 90, International Symposium on Lattice Field Theory, at the Supercomputer Computations Research Institute, Florida State University, Tallahassee, Florida, USA, October 8–12, 1990.*
  
1. “**Lattice Calculation of Baryonic Electromagnetic Form Factors**”  
Terrence Draper, Derek B. Leinweber, R.M. Woloshyn and K.F. Liu.

Nucl. Phys. **A527**, 531C (1991) 3 pp.

*Presented at Panic XII, International Conference on Particles and Nuclei, at M.I.T., Cambridge, Massachusetts, USA, June 25–29, 1990.*

## Conference Proceedings

### 11. “Hadron structure on the back of an envelope”

A. W. Thomas, R. D. Young and D. B. Leinweber

Frascati 2005, “Quark-hadron duality and the transition to pQCD,” 41-49 (2005) 9 pp.  
[arXiv:nucl-th/0509082]

*Invited talk at 1st Workshop on Quark-Hadron Duality and the Transition to pQCD, Frascati, Rome, Italy, 6-8 Jun 2005*

### 10. “Hybrid mesons on the lattice with FLIC fermions”

J. N. Hedditch, B. G. Lasscock, D. B. Leinweber, A. G. Williams and J. M. Zanotti

Proceedings of the Workshop on Gluonic Excitations, Newport News, Virginia, 14-16 May 2003 (2004) 10 pp.

### 9. “Physical Baryon Resonance Spectroscopy from Lattice QCD”

D. Morel, B. Crouch, D. B. Leinweber and A. W. Thomas

Nucl. Phys. A **737** (2004) 3 pp. [arXiv:nucl-th/0309044]

*Contributed to 17th International IUPAP Conference on Few-Body Problems in Physics (FB 17), Durham, North Carolina, 5-10 Jun 2003*

### 8. “The Nucleon Mass In Chiral Effective Field Theory”

R. D. Young, D. B. Leinweber and A. W. Thomas

“Edinburgh 2003, QCD and numerical analysis,” 113 (2003) 8 pp.

*Prepared for 3rd International Workshop on Numerical Analysis and Lattice QCD, Edinburgh, Scotland, 30 Jun - 4 Jul 2003*

### 7. “Nonperturbative Chiral Corrections for Lattice QCD”

A.W. Thomas, D.B. Leinweber and D.H. Lu.

(World Scientific, 2002) 124 7 pp. [arXiv:hep-ph/9905414]

*In the proceedings of the International Symposium on Nuclear Electro-Weak Spectroscopy (NEWS 99) for Symmetries and Electro-Weak Nuclear-Processes, in Osaka, Japan, 9-12 March 1999.*

### 6. “The Transition from Nonperturbative to Perturbative QCD”

A.G. Williams, F. D. Bonnet, P. O. Bowman, D. B. Leinweber, J. I. Skullerud and J. M. Zanotti  
pp. 189–196 (World Scientific, 2002) 8 pp.

*In the proceedings of the Sixth Workshop on Non-perturbative QCD in Paris, France, June 2001.*

### 5. “Lattice Gauge Theory Studies of the Gluon Propagator”

D. B. Leinweber, J. I. Skullerud, and A. G. Williams.

“Paris 1998, Quantum chromodynamics,” pp. 397–404 (World Scientific, Singapore, 1999) 8 pp.  
[arXiv:hep-lat/9808037]

*In the Proceedings of the IV Workshop on Quantum Chromodynamics, at the American University of Paris, Paris, France, 1–6 June 1998, edited by H.M. Fried and B. Müller.*

### 4. “Light Hadron Masses on Coarse Lattices with Improved Actions”

Frank X. Lee and Derek B. Leinweber.

“Williamsburg 1996, Particles and nuclei,” pp. 617–618 (1997) 2 pp. [arXiv:hep-lat/9606005]  
*Presented at PANIC 96, 14th International Conference on Particles and Nuclei, in Williamsburg, VA, May 22–28, 1996.*

3. **“New QCD Sum Rules for Nucleon Axial-Vector Coupling Constants”**

Frank X. Lee, Derek B. Leinweber and Xuemin Jin.

“Williamsburg 1996, Particles and nuclei,” pp. 623–624 (1997) 2 pp. [arXiv:nucl-th/9606026]

*Presented at PANIC 96, 14th International Conference on Particles and Nuclei, in Williamsburg, VA, May 22–28, 1996.*

2. **“New QCD Sum Rules for In-Medium Nucleons”**

Derek B. Leinweber, Xuemin Jin, and R. J. Furnstahl.

“Baryons ’95,” pp. 531–534, (World Scientific, 1996) 4 pp. [arXiv:nucl-th/9511031]

*In the proceedings of Baryons ’95, 7’t International Conference on the Structure of Baryons, in Santa Fe, NM, Oct. 3–7, 1995, Edited by B.F. Gibson, P.D. Barnes, J.B. McClelland, W. Weise.*

1. **“Hadronic Multipole Moments from Lattice QCD”**

Terrence Draper, Derek B. Leinweber and R.M. Woloshyn.

“DPF Conf. 1992,” pp. 1494–1496, (World Scientific, 1993) 3 pp.

*In the proceedings of The Fermilab Meeting DPF 92, 7th Meeting of the American Physical Society Division of Particles and Fields, at FNAL, Batavia, IL, November 10–14 1992, edited by C.H. Albright, P.H. Kasper, R. Raja and J. Yoh.*

## **QCD Visualizations in Magazines, Books, Reports and on the Web**

The following list captures a few of the more significant opportunities where visualizations and animations of QCD phenomena have been presented by other authors to bring the excitement of the field of Lattice QCD to the broadest audience possible.

22. **“Quantum Beauty: Real and Unreal”** Prof. Frank Wilczek, Cambridge University Press (2012)  
Contributed an image of the [QCD Vacuum action density](#).
21. **“Ask a Nobel Laureate: Q&A for Nobelprize.org”**. Featuring Professor David Gross, 2004 Nobel Laureate in Physics (2010). Contributed on-line animation of QCD vacuum structure for promotional video. <http://nobelprize.org> and <http://www.youtube.com/thenobelprize>
20. **UK Institute of Physics promotional Booklet**. Nina Hall (2010). Contributed a quark-interaction visualisation to the back cover of the booklet.
19. **“Discover Magazine,” a popular science magazine based with a US circulation of 800,000..** Adam Hadhazy, Rebecca Horne, Discover Magazine (2010). Contributed a QCD flux-tube image in support of an article on gluons. The associated animation is available at <http://discovermagazine.com/>.
18. **Pittsburgh Supercomputing Center Annual Report**. Shandra Williams, Carnegie Mellon University, USA (2009) Contributed QCD vacuum structure visualization.
17. **“Science”**. Andreas Kronfeld. Contributed proton structure visualization. Science, **322** (2008) 1198.
16. **“Spektrum der Wissenschaft,”** a German scientific monthly and affiliate of Scientific American. Contributed proton structure visualization to an article about proton spin. Spektrum der Wissenschaft, December 2008 issue.

15. “**The Lightness of Being**”. Frank Wilczek Contributed QCD Lava Lamp visualization. Published by Basic Books (2008)
14. “**From Paradox to Paradigm**”. F. Wilczek. Contributed visualization of QCD vacuum action-density structure. *Les Prix Nobel. The Nobel Prizes 2004*, Editor Tore Frängsmyr, [Nobel Foundation], Stockholm, 2005.
13. “**Lattice QCD**”. Kurt Riesselman *et al.*. Contributed visualization of QCD vacuum action-density structure. “Symmetry Magazine, published jointly by Fermilab and the Stanford Linear Accelerator Facility (SLAC)” (2005)
12. “**Física de Partículas, Viaje al Interior del Protón**”. Bruno Juliá Díaz. Contributed two visualizations of proton structure as revealed in lattice QCD. Heraldo de Aragon, Tercer Milenio #447, 24 April 2007.
11. “**University Physics,” First Edition**. Wolfgang Bauer and Gary Westfall. Contributed visualization of the vacuum topological charge density, McGraw-Hill (2007).
10. “**Journey Into the Heart of Matter**”. Argonne National Lab, *et al.*. Contributed visualization of a meson “flux tube”. Office of Science, U.S. Department of Energy.  
<http://www.science.doe.gov/feature/NP.htm>
9. “**Canadian Subatomic Physics Long Range Plan**” Garth Huber *et al.* Contributed visualization of a meson “flux tube” Canadian Subatomic Physics Long Range Plan, 2006.  
[http://lichen.phys.uregina.ca/dnp/files/LRPC\\_Report\\_Final\\_06Nov.pdf](http://lichen.phys.uregina.ca/dnp/files/LRPC_Report_Final_06Nov.pdf)
8. “**Hadron Physics**”. I. J. D. MacGregor and R. Kaiser. Contributed cover image of the baryonic flux-tube distribution. In “Hadron Physics,” Scottish Graduate series (Chapman & Hall/CRC, Taylor & Francis) 2006.
7. “**UKQCD/IBM/Columbia QCDOC Lattice QCD Machine**”. Harry Yeates *et al.*. Contributed visualization of QCD vacuum structure. “PC Plus Magazine ([www.pcplus.co.uk](http://www.pcplus.co.uk)), published in the UK ” (2005)
6. “**Proceedings of the 58th Scottish Summer School in Physics**”. Ralf Kaiser *et al.*. Contributed visualization of baryon flux tubes. “Published by Institute of Physics Publishing, UK” (2005)
5. “**The Search for QCD Exotics**”. Alex R. Dzierba *et al.*. Contributed cover page visualization of meson flux tubes. “Postepy Fizyki (Advances in Physics), Polish Physical Society” (2005)
4. “**Physicists probe the proton**”  
 Derek Leinweber and Cheryl Jones  
 “Australian Partnership for Advanced Computing (APAC) Research using the National Facility 2001-2002” p. 21 (2002)
3. “**Las trituradoras de números**”  
 Abraham Alonso *et al.*  
 Contributed visualization of QCD vacuum structure.  
 Cartas MUY Magazine, Madrid, Spain, No. **241** (2001) 154
2. “**Annual Report of the South Australian Branch of the Australian Institute of Physics**”  
 D. B. Leinweber  
 “The Physicist,” Vol. **38**, No. 2 (2001) 51
1. “**Annual Report of the South Australian Branch of the Australian Institute of Physics**”  
 D. B. Leinweber  
 “The Physicist,” Vol. **37**, No. 2 (2000) 68

## Web Page Projects

### 4. “Visualisations of coherent centre domains in local Polyakov loops”

F. M. Stokes, W. Kamleh and D. B. Leinweber.

<http://www.physics.adelaide.edu.au/cssm/lattice/centreclusters/>

Reveals the evolution of centre clusters in local Polyakov loops as a function of HMC evolution time. As the temperature of the system passes through the critical temperature of deconfinement, the manner in which the domains change is revealed.

December 2013

### 3. “Visualizations of Quantum Chromodynamics (QCD)”

D. B. Leinweber

<http://www.physics.adelaide.edu.au/theory/staff/leinweber/VisualQCD/Nobel/>

Includes animations featured in Prof. Frank Wilczek’s 2004 Nobel Prize Lecture

May 2003

### 2. “Origin of Mass”

D. B. Leinweber

<http://www.physics.adelaide.edu.au/theory/staff/leinweber/VisualQCD/OriginMass/>

Aug 2001

### 1. “Visual QCD Archives”

D. B. Leinweber

<http://www.physics.adelaide.edu.au/theory/staff/leinweber/VisualQCD/QCDvacuum/>

September 1999