

## CURRICULUM VITAE

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Date of birth: 5th November, 1962

### EDUCATION:

1982: B. Sc. in Physics, IIT, Kharagpur, India

1984: M. Sc. in Physics, IIT, Kharagpur, India

1989: Ph. D. in Physics, Tata Institute of Fundamental Research, Bombay, India

### EMPLOYMENT:

1989 – 91: Post-doctoral fellow at Brookhaven National Laboratory

1991 – 92: Post-doctoral fellow at Centre de Energie Atomique, Saclay:

1992 – 95: Post-doctoral fellow at Los Alamos National Laboratory:

1995 – 99: Limited Term Staff Member at Los Alamos National Laboratory:

1999 – : Staff Member at Los Alamos National Laboratory:

### PUBLICATIONS:

#### A. Papers:

[1] Extensive intra-subtype recombination in chronic HIV-1 subtype C infection.

*in preparation.*

[2] Clade specific differences in HIV-1: Diversifying selections and correlations in the C3-V4 region of gp120.

*in preparation.*

[3] Chiral Lattice Gauge theories from Warped Domain Walls and Ginsparg-Wilson fermions.

(T. Bhattacharya, M.R. Martin, and E. Poppitz)

Los Alamos Preprint LA-UR-06-2667, Apr. 2006.

arXiv:hep-lat/0605003

[4] HLA-associated sequence polymorphisms in HCV: Reproducible immune responses and constraints on viral evolution.

*in preparation.*

- [5] Founder effects in population based assessment of HIV polymorphisms and HLA allele associations or Founder effects contribute to perceived associations between HIV sequence polymorphisms and HLA class I alleles.  
 (T. Bhattacharya, M.R. Daniels, D. Heckerman, B. Foley, N. Frahm, C. Kadie, K. Yusim, B. McMahon, I. James, S. Mallal, J.I. Mullins, D.C. Nickle, J. Herbeck, C. Rousseau, G.H. Learn, T. Miura, C. Brander, B. Walker, and B.T. Korber)  
 Los Alamos Preprint LA-UR-06-3312, May. 2006.  
*submitted to Science.*
- [6] Designing polyvalent HIV-1 vaccines for optimal coverage of potential T-cell epitopes in diverse global variants.  
 (W. Fisher, S. Perkins, J. Theiler, T. Bhattacharya, K. Yusim, R. Funkhouser, C.L. Kuiken, B. Haynes, N. Letvin, B. Walker, B.H. Hahn, and B.T. Korber)  
 Los Alamos Preprint LA-UR-06-3608, May. 2006  
*In press at Nature Medicine.*
- [7] Warped Domain Wall Fermions.  
 (T. Bhattacharya, C. Csáki, M.R. Martin, Y. Shirman, J. Terning)  
**JHEP** **08**, (2005) 061;  
**doi:10.1088/1126-6708/2005/08/061.**  
 Los Alamos Preprint LA-UR-05-1569, March 2005.  
 arXiv:hep-lat/0503011
- [8] Testing improved staggered fermions with  $m_s$  and  $B_K$ .  
 (W. Lee, T. Bhattacharya, G.T. Fleming, G. Kilcup, R. Gupta, and S. Sharpe)  
**Phys. Rev. D** **71**, (2005) 094501;  
**doi:10.1103/PhysRevD.71.094501.**  
 Los Alamos Preprint LA-UR-04-4788, Jul. 2004; University of Washington Preprint UW/PT 04-11, and Seoul National University Preprint SNUTP-04-008.  
 arXiv:hep-lat/0409047
- [9] Feedback cooling of atomic motion in cavity QED.  
 (D.A. Steck, K. Jacobs, H. Mabuchi, T. Bhattacharya, and S. Habib)  
**Phys. Rev. A** **74**, (2006) 012322;  
**doi:10.1103/PhysRevA.74.012322.**  
 Los Alamos Preprint LA-UR-04-4687, Jul. 2004.
- [10] Successive dominance of human immunodeficiency virus type 1 sequences in patients receiving combination antiretroviral therapy.  
 (C.L. Kuiken, K. Kunstman, T. Bhattacharya, J. Kunstman, K. Kommander, J. Phair, B. Good, S. Pillai, and S. Wolinsky)  
 Los Alamos Preprint LA-UR-04-5456.  
*in preparation.*

- [11] Quantum Feedback Control of Atomic Motion in an Optical Cavity.  
(T. Bhattacharya, S. Habib, K. Jacobs, H. Mabuchi, and D.A. Steck)  
Phys. Rev. Lett. **92**, (2004) 223004;  
**doi:10.1103/PhysRevLett.92.223004.**  
Los Alamos preprint LAUR-03-6836, Sep. 2003.  
arXiv:quant-ph/0310153
- [12] The transition to classical chaos in a coupled quantum system through continuous measurement.  
(S. Ghose, P. Alsing, I. Deutsch, T. Bhattacharya, S. Habib, and K. Jacobs)  
Phys. Rev. **A69**, (2004) 052116;  
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Los Alamos preprint LAUR-03-5886, Aug. 2003.  
arXiv:quant-ph/0309093
- [13] Improved bilinears in lattice QCD with non-degenerate quarks.  
(T. Bhattacharya, R. Gupta, W. Lee, S. Sharpe, and J.M.S. Wu)  
Phys. Rev. **D73**, (2006) 034504;  
**doi:10.1103/PhysRevD.73.034504.**  
Los Alamos preprint LAUR-03-4939, Jul. 2003 and University of Washington preprint UW/PT 03-20, Sep. 2003.  
arXiv:hep-lat/0511014
- [14] Scaling behavior of discretization errors in renormalization and improvement constants.  
(T. Bhattacharya, R. Gupta, W. Lee, and S. Sharpe)  
Phys. Rev. **D73**, (2006) 114507;  
**doi:10.1103/PhysRevD.73.114507.**  
Los Alamos preprint LAUR-03-3849, Jun. 2003.  
arXiv:hep-lat/0509160
- [15] Consensus and Ancestral State HIV Vaccines: Response.  
(F. Gao, T. Bhattacharya, B. Gaschen, J. Taylor, J.P. Moore, V. Novitsky, K. Yusim, D. Lang, B. Foley, S. Beddows, M. Alam, B. Haynes, B.H. Hahn, and B.T. Korber)  
Science **299** (2003) 1517-1518 (Mar 7, 2003; number 5612);  
**doi:10.1126/science.299.5612.1515c**  
PubMed id 12624248.
- [16] Timing of the HIV-1 subtype C epidemic in Ethiopia: An improved estimate using maximum likelihood methods  
(U. Smith, T. Bhattacharya, and C.L. Kuiken)  
Los Alamos preprint LA-UR-02-7315, Nov. 2002.

- [17] Continuous Quantum Measurement and the Quantum to Classical Transition.  
 (T. Bhattacharya, S. Habib, and K. Jacobs)  
*Phys. Rev. A***67**, (2003) 042103;  
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 Los Alamos preprint LAUR-02-5289, Aug. 2002.  
 arXiv:quant-ph/0211036
- [18] Recovering Classical Dynamics from Coupled Quantum Systems through Continuous Measurement.  
 (S. Ghose, P. Alsing, I. Deutsch, T. Bhattacharya, S. Habib, and K. Jacobs)  
*Phys. Rev. A***67**, (2003) 052102;  
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 Los Alamos preprint LAUR-01-5290, Aug. 2002.  
 arXiv:quant-ph/0208064
- [19] Diversity Considerations in HIV-1 Vaccine Selection.  
 (B. Gaschen, J. Taylor, K. Yusim, B. Foley, F. Gao, D. Lang, V. Novitsky,  
 B. Haynes, B.H. Hahn, T. Bhattacharya, and B.T. Korber)  
*Science* **296** (2002) 2354-2360 (Jun 28, 2002; number 5577);  
**doi:10.1126/science.1070441;** Available without subscription; PubMed id  
 12089434.
- [20] Strange Happenings at the Quantum-Classical Boundary: The Delta-Kicked Rotor. or The delta-function-kicked rotor: Momentum diffusion and the quantum-classical boundary.  
 (T. Bhattacharya, S. Habib, K. Jacobs, and K. Shizume)  
 Los Alamos preprint LAUR-01-1909, May 2001. LAUR-01-6307, Nov. 2001.  
*Phys. Rev. A***65**, (2002) 032115;  
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- [21] Order  $a$  Improved Renormalization Constants.  
 (T. Bhattacharya, R. Gupta, W. Lee, and S. Sharpe)  
*Phys. Rev. D***63**, (2001) 074505;  
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 UW-PT/00-16, Sep. 2000.  
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- [22] Search for the Origin of HIV and AIDS : Response.  
 (B.T. Korber, T. Bhattacharya, J. Theiler, R. Gupta, A. Lapedes, B.H. Hahn,  
 F. Gao, M. Muldoon, and S. Wolinsky)  
*Science* **289** (2000) 1140-1141 (Aug 18, 2000; number 5482);  
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- [23] Timing the Origin of the HIV Epidemic.  
 (B.T. Korber, M. Muldoon, J. Theiler, F. Gao, R. Gupta, A. Lapedes,  
 B.H. Hahn, S. Wolinsky, and T. Bhattacharya)  
*Science* **288** (2000) 1789-1796 (June 9, 2000; number 5472);  
**doi:10.1126/science.288.5472.1789**;  
 PubMed id 10846155.
- [24] Continuous Quantum Measurement and the Emergence of Classical Chaos.  
 (T. Bhattacharya, S. Habib, and K. Jacobs)  
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- [25] Non-perturbative Renormalization Constants using Ward Identities.  
 (T. Bhattacharya, S. Chandrasekharan, R. Gupta, W. Lee, and S. Sharpe)  
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 UW-PT/98-15, University of Tsukuba preprint UTCCP-P-56, and Duke  
 University preprint DUKE-TH-99-185, Apr. 1999.  
 arXiv:hep-lat/9904011
- [26] Heavy-light Mesons and Baryons with  $b$  Quarks.  
 (A. Ali Khan, T. Bhattacharya, S. Collins, C.T.H. Davies, C. Morningstar,  
 R. Gupta, J. Shigemitsu, and J. Sloan)  
*Phys. Rev.* **D62**, (2000) 054505;  
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 Los Alamos preprint LAUR-99-723, OSU preprint OHSTPY-HEP-T-98-018  
 and University of Tsukuba preprint UTCCP-P-77, Dec. 1999.  
 arXiv:hep-lat/9912034
- [27]  $B$  Meson Decay Constants from NRQCD.  
 (with A. Ali Khan, T. Bhattacharya, S. Collins, C.T.H. Davies,  
 C. Morningstar, R. Gupta, J. Shigemitsu, and J. Sloan)  
*Phys. Lett.* **B427**, (1998) 132-140;  
**doi:10.1016/S0370-2693(98)00323-2**.  
 Los Alamos Preprint LA-UR-97-4642 and OSU preprint  
 OHSTPY-HEP-T-97-017, Jan. 1998.  
 arXiv:hep-lat/9801038
- [28] Duality and the Extraction of Light Quark Masses From Finite Energy and  
 QCD Sum Rules.  
 (T. Bhattacharya, R. Gupta, and K. Maltman)  
*Phys. Rev.* **D57**, (1998) 5455-5467;  
**doi:10.1103/PhysRevD.57.5455 hep-lat/9611023**.  
 Los Alamos Preprint LA-UR-96-2698, Mar. 1997.  
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- [29] Matrix Elements of 4-fermion Operators with Quenched Wilson Fermions.  
 (R. Gupta, T. Bhattacharya, and S. Sharpe)  
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 Los Alamos Preprint LA-UR-96-1829 and University of Washington preprint  
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- [30] Comment on “Gravitationally Induced Neutrino-Oscillation Phases.”  
 (T. Bhattacharya, S. Habib and E. Mottola)  
*Phys. Rev.* **D59**, (1999) 067301;  
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- [31] Light Quark Masses from Lattice QCD.  
 (R. Gupta and T. Bhattacharya)  
*Phys. Rev.* **D55**, (1997) 7203-7217;  
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 Los Alamos Preprint LA-UR-96-1840, May 1996.  
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- [32] Large  $q$  Expansion of the 2D  $q$ -states Potts’ Model.  
 (T. Bhattacharya, R. Lacaze and A. Morel)  
*J. Phys.* **I7** (1997) 81;  
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 Saclay preprint SACLAY-SPHT-96-001, Jan 1996.  
 arXiv:hep-lat/9601012
- [33] Hadron Spectrum with Wilson fermions.  
 (T. Bhattacharya, R. Gupta, G. Kilcup, and S. Sharpe)  
*Phys. Rev.* **D53**, (1996) 6486-6508;  
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 Los Alamos Preprint LA-UR-95-2354, Oct 1995.  
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- [34] Decay Constants with Wilson Fermions at  $\beta = 6.0$ .  
 (T. Bhattacharya and R. Gupta)  
*Phys. Rev.* **D54**, (1996) 1155-1166;  
**doi:10.1103/PhysRevD.54.1155**.  
 Los Alamos Preprint LA-UR-95-2355, Oct 1995.  
 arXiv:hep-lat/9510044

- [35] Large Energy Cumulants in the 2-d Potts' Model and their Effects in Finite Size Analysis.  
 (T. Bhattacharya, R. Lacaze and A. Morel)  
*Nucl. Phys.* **B435**, (1995) 526-554;  
**doi:10.1016/0550-3213(94)00393-S.**  
 Saclay Preprint SACLAY-SPHT-94-008.  
 arXiv:hep-lat/9407004
- [36] Semileptonic Form-Factors of Heavy-Light Mesons from Lattice QCD.  
 (R. Gupta, T. Bhattacharya, and D. Daniel)  
 Los Alamos Preprint, LA-UR-93-3580, Oct 1993.  
 arXiv:hep-lat/9310007
- [37] The Free Energy of the Potts' Model: From the Continuous to the First Order Transition Region.  
 (T. Bhattacharya, R. Lacaze and A. Morel)  
*Europhys. Lett.* **23** (1993) 547.  
 Saclay preprint SACLAY-SPHT-93-022.  
 arXiv:hep-th/9303075
- [38] Critical Behavior of the Antiferromagnetic Heisenberg Model on a Stacked Triangular Lattice.  
 (T. Bhattacharya, A. Billoire, R. Lacaze, and T. Jolicœur)  
*J. Phys.* **I4** (1994) 181-186;  
**doi:10.1051/jp1:1994131**  
 Saclay preprint SACLAY-SPHT-93-015.  
 arXiv:cond-mat/9302019
- [39] Z(N) Interface Tension in a Hot SU(N) Gauge Theory.  
 (T. Bhattacharya, A. Gocksch, C.P. Korthals Altes, and R.D. Pisarski)  
*Nucl. Phys.* **B383**, (1992) 497-524;  
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 Brookhaven Preprint BNL-47625, Feb. 1992.  
 arXiv:hep-ph/9205231
- [40] Particles near Threshold.  
 (T. Bhattacharya and S. Willenbrock)  
*Phys. Rev.* **D47**, (1993) 4022-4027;  
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 Brookhaven Preprint BNL-46481, Jul. 1991.
- [41] Interface Tension in an SU(N) Gauge Theory at High Temperature.  
 (T. Bhattacharya, A. Gocksch, C.P. Korthals Altes, and R.D. Pisarski)  
*Phys. Rev. Lett.* **66**, (1991) 998-1000;  
**doi:10.1103/PhysRevLett.66.998.**  
 Brookhaven Preprint BNL-45297, Oct. 1990.

- [42] Tree Unitarity in Broken Supergravity. 2. Double Gravitino Amplitude.  
 (T. Bhattacharya and P. Roy)  
 Nucl. Phys. **B328**, (1989) 481;  
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 TIFR preprint TIFR/TH/88-41, Oct. 1988.
- [43] Tree Unitarity in Broken Supergravity. 1. Single Gravitino Amplitude.  
 (T. Bhattacharya and P. Roy)  
 Nucl. Phys. **B328**, (1989) 469;  
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 TIFR preprint TIFR/TH/88-38, Jun. 1988.
- [44] Role of Chiral Scalar and Pseudoscalar in Two Photon Production of a Superlight Gravitino.  
 (T. Bhattacharya and P. Roy)  
 Phys. Rev. **D38**, (1988) 2284;  
**doi:10.1103/PhysRevD.38.2284.**  
 TIFR preprint TIFR/TH/88-11, May 1988.
- [45] Unitarity Limit on the Gaugino-Gravitino Mass Ratio.  
 (T. Bhattacharya and P. Roy)  
 Phys. Lett. **B206**, (1988) 655.  
 TIFR preprint TIFR/TH/88-4, Mar. 1988.
- [46] Probing a Superlight Gravitino in Photon-Photon Collisions.  
 (T. Bhattacharya and P. Roy)  
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**doi:10.1103/PhysRevLett.59.1517**, ERRATUM *ibid.* **60** (1988) 1455;  
**doi:10.1103/PhysRevLett.60.1455.2.**  
 TIFR preprint TIFR/TH/87-15, Jul. 1987.
- [47] Constraint on Unstable Photino Mass from an Ultralight Gravitino.  
 (T. Bhattacharya and P. Roy)  
 Pramana **28** (1987) L699.  
 TIFR preprint TIFR/TH/87-1, Mar. 1987.
- [48] The Gel'fand Realization and the Exceptional Representations of  $SL(2,R)$ .  
 (D. Basu and T. Bhattacharya)  
 J. Math. Phys. **26** (1985) 12;  
**doi:10.1063/1.526799.**

## **B. Talks and other unrefereed publications:**

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This section contains those talks which were presented at conferences and formed part of the proceedings. I have excluded the talks presented by my collaborators when I played no significant role in authoring the writeup. Hence a spires search for my name is likely to find some articles not mentioned here.

- [1] Towards a chiral gauge theory by deconstruction in  $\text{AdS}_5$ .  
(T. Bhattacharya, R. Gupta, M.R. Martin, Y. Shirman, C. Csáki, and J. Terning)  
Proceedings of the 23rd International Symposium on Lattice Field Theory, Dublin, Ireland, 2005, Eds. Michael, *et al.*, Proceedings of Science **LAT2005**, (2005) 136.  
Los Alamos Preprint LA-UR-05-7739.  
arXiv:hep-lat/0510073
  
- [2] Chaos and Quantum Mechanics.  
(S. Habib, T. Bhattacharya, B. Greenbaum, K. Jacobs, K. Shizume, and Bala Sundaram)  
Proceedings of the 16th Florida Workshop in Nonlinear Astronomy and Physics, 2004, Eds. Gottesman, *et al.*, ‘Nonlinear Dynamics in Astronomy and Physics: In Memory of Henry Kandrup,’ Annals of the New York Academy of Sciences **1045**, (2005) 308-332;  
**doi:10.1016/S0920-5632(03)02547-7**.  
Los Alamos Preprint LA-UR-05-2905.  
arXiv:quant-ph/0505085
  
- [3] Nonlinear Quantum Dynamics  
(S. Habib, T. Bhattacharya, B. Greenbaum, A. Doherty, A. Hopkins, K. Jacobs, H. Mabuchi, K. Schwab, K. Shizume, D.A. Steck, Bala Sundaram)  
Proceedings of the NATO Advanced Workshop on Nonlinear Dynamics and Fundamental Interactions, Tashkent, October, 2004.  
Los Alamos Preprint LA-UR-05-0368, August 2004.  
arXiv:quant-ph/0505046
  
- [4] Calculating  $\epsilon'/\epsilon$  Using HYP staggered fermions.  
(T. Bhattacharya, G.T. Fleming, G. Kilcup, R. Gupta, W. Lee, and S. Sharpe)  
Proceedings of the 22nd International Symposium on Lattice Field Theory, Batavia, Illinois, USA, 2003, Eds. Bodwin, *et al.*, Nucl. Phys. (Proc. Suppl.) **B140**, (2005) 369-371;  
**doi:10.1016/j.nuclphysbps.2004.11.256**.  
Los Alamos Preprint LA-UR-04-5236, Aug. 2004; and Seoul National University Preprint SNUTP-04-015.  
arXiv:hep-lat/0409046

- [5] Calculating weak matrix elements using HYP fermions.  
 (T. Bhattacharya, G.T. Fleming, G. Kilcup, R. Gupta, W. Lee, and S. Sharpe)  
 Proceedings of the 21st International Symposium on Lattice Field Theory, Tsukuba, Japan, 2003, Eds. S. Aoki, *et al.*, Nucl. Phys. (Proc. Suppl.) **B129**, (2003) 257-259;  
**doi:10.1016/S0920-5632(03)02547-7.**  
 Los Alamos Preprint LA-UR-03-6654; Seoul National University Preprint SNUTP-03-020; and University of Washington Preprint UW-PT 03-19.  
 arXiv:hep-lat/0309105
- [6] Improved bilinears in unquenched lattice QCD.  
 (T. Bhattacharya, R. Gupta, W. Lee, S. Sharpe, and Jackson M.S. Wu)  
 Proceedings of the 21st International Symposium on Lattice Field Theory, Tsukuba, Japan, 2003, Eds. S. Aoki, *et al.*, Nucl. Phys. (Proc. Suppl.) **B129**, (2004) 441-443;  
**doi:10.1016/S0920-5632(03)02608-2.**  
 Los Alamos Preprint LA-UR-03-6623, Seoul National University Preprint SNUTP-03-019, and University of Washington Preprint UW-PT 03-12.  
 arXiv:hep-lat/0309087
- [7] Progress report on the staggered  $\epsilon'/\epsilon$  project.  
 (T. Bhattacharya, G.T. Fleming, G. Kilcup, R. Gupta, W. Lee, and S. Sharpe)  
 Proceedings of the 20th International Symposium on Lattice Field Theory, Boston, Massachusetts, USA, 2002, Eds. M. Edwards, *et al.*, Nucl. Phys. (Proc. Suppl.) **B119**, (2003) 428-430;  
**doi:10.1016/S0920-5632(03)01576-7.**  
 Seoul National University Preprint SNUTP-02-028.  
 arXiv:hep-lat/0208050
- [8] Preface.  
 (T. Bhattacharya and N. Cooper)  
 Los Alamos Science **27** (2002) x-xii.
- [9] Emergence of Classical Dynamics in a Quantum World.  
 (T. Bhattacharya, S. Habib, and K. Jacobs)  
 Los Alamos Preprint LA-UR-02-0786  
 Los Alamos Science **27** (2002) 110-125.  
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- [10] Scaling behavior of improvement and renormalization constants.  
 (T. Bhattacharya, R. Gupta, W. Lee, and S. Sharpe)  
 Proceedings of the 19th International Symposium on Lattice Field Theory,  
 Berlin, Germany, 2001, Eds. M. Müller-Preussker, *et al.*, Nucl. Phys. (Proc.  
 Suppl.) **B106**, (2002) 789-791;  
**doi:10.1016/S0920-5632(01)01844-8.**  
 Los Alamos Preprint LA-UR-01-5861  
 arXiv:hep-lat/0111001
- [11] Weak Matrix Elements for CP Violation.  
 Proceedings of the 19th International Symposium on Lattice Field Theory,  
 Berlin, Germany, 2001, Eds. M. Müller-Preussker, *et al.*, Nucl. Phys. (Proc.  
 Suppl.) **B106**, (2002) 311-313;  
**doi:10.1016/S0920-5632(01)01698-X.**  
 (T. Bhattacharya, G.T. Fleming, G. Kilcup, R. Gupta, W. Lee, and  
 S. Sharpe)  
 Los Alamos Preprint LA-UR-01-5951  
 arXiv:hep-lat/0111004
- [12] Renormalization Constants using Quark States in Landau Gauge.  
 (T. Bhattacharya, R. Gupta, and W. Lee)  
 Proceedings of the 19th International Symposium on Lattice Field Theory,  
 Berlin, Germany, 2001, Eds. M. Müller-Preussker, *et al.*, Nucl. Phys. (Proc.  
 Suppl.) **B106**, (2002) 786-788;  
**doi:10.1016/S0920-5632(01)01843-6.**  
 Los Alamos Preprint LA-UR-01-5950  
 arXiv:hep-lat/0111002
- [13] Renormalization Constants using Quark States in Fixed Gauge.  
 (T. Bhattacharya, R. Gupta, and W. Lee)  
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 Bangalore, India, 2000, Eds. T. Bhattacharya, *et al.*, Nucl. Phys. (Proc.  
 Suppl.) **B94**, (2001) 595-598;  
**doi:10.1016/S0920-5632(01)00874-X.**  
 Los Alamos Preprint LAUR-01-0355  
 arXiv:hep-lat/0106007
- [14] Improvement and Renormalization Constants in  $O(a)$  Improved Lattice QCD.  
 (T. Bhattacharya, R. Gupta, W. Lee, and S. Sharpe)  
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 Suppl.) **B94**, (2001) 599-602;  
**doi:10.1016/S0920-5632(01)00935-5.**  
 Los Alamos Preprint LAUR-00-5683  
 arXiv:hep-lat/0101007

- [15] Using Human Immunodeficiency Virus Type 1 Sequences to Infer Historical Features of the Acquired Immune Deficiency Syndrome Epidemic and Human Immunodeficiency Virus Evolution.  
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