

Dr. Bilal Masud,

List of Publications

1-List of Research Papers published in foreign journals of international repute:

1: B. Masud, J. Paton, A. M. Green and G. Q. Liu, **Nuclear Physics** (Elsevier) **Vol. no. A 528**, year 1991, page no. 477. The Title of Publication: A Model for Quark Exchange in Chromodynamics illustrated by a description of meson-meson scattering.

2: B. Masud, **Physical Review** (American Physical Society, USA) **Vol. no. D50**, year no. 1994, page no. 6783. The Title of Publication: A Model for $q^2 \bar{q}^2$ Systems illustrated by an application to $K \bar{K}$ Scattering.

3: S. Furui, A. M. Green and B. Masud, **Nuclear Physics** (Elsevier) **Vol. no. A582**, year 1995, page no. 682. The Title of Publication: An Analysis of four-quark energies in SU(2) lattice Monte Carlo using the flux-tube symmetry.

4: Imran Jamil and Bilal Masud, **Eur. Phys. J. A** (Springer), **47: 33**, year 2011. The Title of Publication: Dynamical effects of QCD in $q^2 \bar{q}^2$ systems.

5: Nosheen Akbar, Bilal Masud and Saba Noor, **Eur. Phys. J. A** (Springer), **47: 124**, year 2011. The Title of Publication: Wave Function Based Characteristics of Hybrid Mesons.

6: Nosheen Akbar and Bilal Masud, **Eur. Phys. J. A** (Springer), **48: 25**, year 2012. The Title of Publication: Dynamical Implications of Gluonic Excitations in Meson-Meson Systems.

7. Faisal Akram, Bilal Masud et. al., **Phys. Rev.** (American Physical Society, USA) **D 87, 01301**, year 2013. Title: "Vacuum Polarization and Dynamical chiral Symmetry Breaking: Phase Diagrams of QED with Four-Fermion Contact Interaction."

8. Ghulam Mustafa, Faisal Akram and Bilal Masud, **Communications in Theoretical Physics** (IOPscience) **59, 324** (2013). Title: Optimization of Neutrino Oscillations Parameters using Differential Evolution Technique.

9: Daud Ahmad and Bilal Masud, **Abstract and Applied Analysis** (Hindawi) , Vol/Year 2013, **Article: ID 645368** Title: A Coons patch spanning a finite number of curves tested for variationally minimizing its area.

10: Daud Ahmad and Bilal Masud, **Applied Mathematics and Computation** (Elsevier), **Volume 233**, 1 May 2014, Pages 72–84 Title: Variational minimization on string-rearrangement surfaces, illustrated by an analysis of the bilinear interpolation.

11: M. Atif Sultan, Nosheen Akbar, Bilal Masud, and Faisal Akram, **Phys. Rev.** (American Physical Society, USA) **D 90**, 054001 (2014). Title: Higher hybrid charmonia in an extended potential model.

12: Daud Ahmad and Bilal Masud, **Computers and Mathematics with Applications** (Elsevier) 69 (2015) **1242–1262**, Near-stability of a quasi-minimal surface indicated through a tested curvature algorithm.

13- M. Imran Jamil, Bilal Masud, Faisal Akram and S. M. Sohail Gilani, **Chinese Physics C** (IOP publishing) **Vol. 41**, No.1, 013103 (12 pages), year 2017, title: $\bar{D}^0 D^{0*}$ ($D^0 \bar{D}^{0*}$) system in *QCD-improved many body potential*.

14- Nosheen Akbar, M. Atif Sultan, Bilal Masud and Faisal Akram, **Physical Review** (American Physical Society) **D 95**, 074018 (16 pages), year 2014, title: *Higher hybrid bottomonia in an extended potential model*.

15- S. M. Gilani, M. Imran Jamil, Bilal Masud and Faisal Akram, **Eur. Phys. J. A** **56** (2020) 2, 66, title: $\rho J/\psi$ scattering in an Improved Many Body Potential.

16- Nosheen Akbar, Atif Sultan, Bilal Masud and Faisal Akram, **The European Physical Journal A** (Springer) (2019) **55**: 82, title: Conventional and hybrid Bc mesons in an extended potential model.

17- Ishrat Asghar, Bilal Masud, E.S. Swanson, Faisal Akram, M. Atif Sultan, **The European Physical Journal A** (Springer) (2018) 54: **7, 127**, title: Decays and spectrum of bottom and bottom strange mesons.

18- Ishrat Asghar, Faisal Akram, Bilal Masud and Atif Sultan, **Physical Review D** (American Physical Society) **D 100**, 096002, year 2018, title: Properties of excited charmed-bottom mesons.

19- Shaheen Irfan, Faisal Akram and Bilal Masud, **Phys. Rev. C** 100 (2019) 6, 064906, title: Interactions of B_c mesons in relativistic heavy-ion collisions.

20- M. Atif Sultan, Khépani Raya, Faisal Akram, Adnan Bashir, and Bilal Masud, **Physical Review D** (American Physical Society) **D 103**, 054036, year 2021, Title: Effect of the quark-gluon vertex on dynamical chiral symmetry breaking.

21: S. Furui and B. Masud, **Confinement III proceedings** (June 1998, Jefferson Lab, New-Port), published by World Scientific, pages 195-198. Title: An Analysis of 4-quark energies in SU(2) lattice Monte Carlo.

22: S. Furui and B. Masud, **Confinement 2000 proceedings** (March 2000, RNCP, Osaka, Japan), published by World Scientific, pages 337-340. Title: The colour confinement and the minimal surface.

2-List of Papers published in Pakistani journals and as Conference Proceedings

1: R. Ahmed, B. Masud and N. Ikram, Journal of Natural Sciences and Mathematics, Govt. College, Lahore, Vol. 41 No. 1 (April 2001), p. 1. Title: A study of non-linear equations in disordered structures.

2: B. Masud, "Objectivity: An Epistemological Value", *Al-Hikmat* (Journal of the Department of Philosophy, Punjab University) 2002 issue, pp.1-18.

3: سائنس اور انسانی علوم: مقابلہ یا تعاون؟

Al-Hikmat: A Journal of Philosophy, Volume 38 (2018) pp.121-131.

4: B. Masud and S. Furui, "A Functional's Minimization: Bilinear Interpolations and Minimal Surfaces", Proceedings of the Ninth National Symposium on Frontiers in Physics, organized by the Pakistan Physical Society Conference, Government College University, Lahore, 28-30 January 2003, p. 36 to 45.

5: B. Masud and S. Furui, "Minimal Surfaces or Bilinear Interpolations: What Generalizes Lines," World Conference on 21st Century Mathematics 2004, School of Mathematical Sciences, GC University, March 18-20, 2004.

6: B. Masud and S. Furui, "Molecules and Hybrid Mesons: Illustrating Multi-valued Potential Energies.", proceedings of the 10th National Symposium on Frontiers in Physics, organized by the Pakistan Physical Society Conference, Government College University, Lahore, 11-14 January 2005, p. 149 to 156.

7: B. Masud, "Big Bang and Creation of Universe in Religious Perspective", Science-Religion Dialogue proceedings, published by the Hazara Society for Science-Religion Dialogue, Pakistan, in the Spring 2003 issue, pp. 14-26.

8: B. Masud "Disorder, Chaos and Randomness: Can Science discover something Un-Designed?" Science-Religion Dialogue proceedings, the Hazara Society for Science-Religion Dialogue, Volume 4 (2005), Number 1,2, p.43-47.

9: B. Masud, "String Theories", proceedings of the First Conference on Relativity, Mathematics Department, University of the Punjab, 11-13 Feb, 2010.