

USQCD Publications—2023

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31. T. Blum, N. Christ, M. Hayakawa, T. Izubuchi, L. Jin, C. Jung, C. Lehner and C. Tu, “Hadronic light-by-light contribution to the muon anomaly from lattice QCD with infinite volume QED at physical pion mass,” [arXiv:2304.04423 \[hep-lat\]](#).
30. A. Rodas, J. J. Dudek and R. G. Edwards, “Constraining the quark mass dependence of the lightest resonance in QCD,” [arXiv:2304.03762 \[hep-lat\]](#).
29. M. Bruno, D. Hoying, T. Izubuchi, C. Lehner, A. S. Meyer and M. Tomii, “Isospin 0 and 2 two-pion scattering at physical pion mass using distillation with periodic boundary conditions in lattice QCD,” [arXiv:2304.03313 \[hep-lat\]](#).
28. B. Acharya, C. Adams, A. A. Aleksandrova, K. Alfonso, P. An, S. Baeßler, A. B. Balantekin, P. S. Barbeau, F. Bellini and V. Bellini, *et al.* “Fundamental Symmetries, Neutrons, and Neutrinos,” [arXiv:2304.03451 \[nucl-ex\]](#).
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26. S. Catterall, J. Giedt and G. C. Toga, “Holography from lattice $\mathcal{N} = 4$ super Yang-Mills,” [arXiv:2303.16025 \[hep-th\]](#).
25. S. Tang, S. Wu and H. Song, “Dynamical critical fluctuations near the QCD critical point with hydrodynamic expansion rate,” [arXiv:2303.15017 \[nucl-th\]](#).
24. J. M. Flynn, R. C. Hill, A. Jüttner, A. Soni, J. T. Tsang and O. Witzel, “Exclusive semileptonic $B_s \rightarrow K\ell\nu$ decays on the lattice,” [arXiv:2303.11280 \[hep-lat\]](#).
23. A. Rodas, J. J. Dudek and R. G. Edwards, “The quark mass dependence of $\pi\pi$ scattering in isospin 0, 1 and 2 from lattice QCD,” [arXiv:2303.10701 \[hep-lat\]](#).
22. A. Hasenfratz, C. T. Peterson, J. van Sickle and O. Witzel, “A parameter of the SU(3) Yang-Mills theory from the continuous β function,” [arXiv:2303.00704 \[hep-lat\]](#).
21. K. F. Liu, “Hadrons, superconductor vortices, and cosmological constant,” [arXiv:2302.11600 \[hep-ph\]](#).
20. D. Schaich, “Exploring conformality in lattice $\mathcal{N} = 4$ supersymmetric Yang–Mills,” [PoS LATTICE2022, 220 \(2023\) \[arXiv:2304.04655 \[hep-lat\]\]](#).
19. L. Altenkort, O. Kaczmarek, R. Larsen, S. Mukherjee, P. Petreczky, H. T. Shu and S. Stenbach, “Heavy quark diffusion from 2 + 1 flavor lattice QCD,” [arXiv:2302.08501 \[hep-lat\]](#).
18. J. Holligan, X. Ji, H. W. Lin, Y. Su and R. Zhang, “Precision control in lattice calculation of x -dependent pion distribution amplitude,” [arXiv:2301.10372 \[hep-lat\]](#).

17. T. Blum, P. A. Boyle, M. Bruno, D. Hoying, T. Izubuchi, L. Jin, C. Jung, C. Kelly, C. Lehner and A. S. Meyer, *et al.* “Isospin 0 and 2 two-pion scattering at physical pion mass using all-to-all propagators with periodic boundary conditions in lattice QCD,” [arXiv:2301.09286 \[hep-lat\]](#).
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1. A. S. Meyer, “Neutrino oscillation and lattice QCD,” [PoS LATTICE2022, 240 \(2023\)](#) [[arXiv:2301.04616 \[hep-lat\]](#)].

INSPIRE search “find date 2023 and fulltext USQCD” includes papers using the USQCD software stack and/or data generated on USQCD computing resources. The 2023 list also includes contributions to the Snowmass and NSAC processes that mention the role of USQCD in shaping the U.S. HEP and/or NP programs.

May 3, 2023