
Biosketch
Carleton DeTar

Contact Information

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Professional Preparation

Ph.D. Physics, 1970, University of California, Berkeley
A.B. Chemistry and Physics, 1966, Harvard College

Appointments

1986–present, Department of Physics and Astronomy, University of Utah, Professor
2013–2016, Department of Physics and Astronomy, University of Utah, Chair
1998–2005, Department of Physics, University of Utah, Associate Chair
1983–1989, Department of Physics, University of Utah, Associate Chair
1978–1985, Department of Physics, University of Utah, Associate Professor
1972–1978, Department of Physics, Massachusetts Institute of Technology, Assistant Professor
1970–1972, Center for Theoretical Physics, Massachusetts Institute of Technology, Postdoctoral Research Associate

Selected Recent Publications

- “Hadronic-vacuum-polarization contribution to the muon’s anomalous magnetic moment from four-flavor lattice QCD,” (with the Fermilab Lattice and HPQCD and MILC Collaborations), Phys.Rev. D **101**, 034512 (2020) [arXiv:1902.04223].
- “Strong-isospin-breaking correction to the muon anomalous magnetic moment from lattice QCD at the physical point,” (with the Fermilab Lattice, HPQCD, and MILC collaborations), Phys. Rev. Lett. **120**, 152001 (2018).
- “ $B_s \rightarrow K\ell\nu$ decay from lattice QCD,” (with the Fermilab Lattice and MILC Collaborations), Phys. Rev. D **100**, 034501 (2019) [arXiv:1901.02561] (2019).
- “Performance Portability Strategies for Grid C++ Expression Templates”, (with Peter A. Boyle, M. A. Clark, Meifeng Lin, Verinder Rana, and Alejandro Vaquero Avilés-Casco), EPJ Web Conf. **175**, 09006 (2018) [arXiv:1710.09409].
- “Splittings of low-lying charmonium masses at the physical point,” (with A. S. Kronfeld, S. H. Lee, D. Mohler and J. N. Simone), Phys. Rev. D **99**, 034509 (2019) [arXiv:1810.09983].

Research Interests and Expertise

I am interested in using methods of lattice QCD to guide and assist in high-precision experimental searches for fundamental interactions beyond the standard model and for constraining models of such interactions.

Synergistic Activities

- Steering Committee, LatticeQCD AD, DOE Exascale Computing Project, 2017–present.
- USQCD Executive Committee, 2016–present
- DOE SciDAC Software Coordinating Committee 2002–2017