

CURRICULUM VITAE

Javad Komijani

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Education and Research Experience

2021—	Postdoctoral Researcher, ETH Zurich
2019-2020	Postdoctoral Researcher, University of Tehran
2017-2018	Postdoctoral Researcher, University of Glasgow
2015-2017	Postdoctoral Researcher, Technical University of Munich
2010-2015	Ph.D. in Physics, Washington University in St. Louis
Thesis Title	Topics in Lattice Gauge Theory and Theoretical Physics
Advisors	Prof. Claude Bernard and Prof. Carl M. Bender
2006-2009	M.Sc. in Electrical Engineering, University of Tehran
2002-2006	B.Sc. in Electrical Engineering, University of Tehran

Teaching Experience

Fall 2019	<i>Workshop on Lattice QCD (with Monte Carlo Simulations)</i> , Instructor, University of Tehran
Winter 2018	<i>C Programming under Linux</i> , Teaching Assistant, University of Glasgow
Spring 2016	<i>Elementary Particle Physics</i> , Teaching Assistant, Technical University of Munich
Spring 2016	<i>Quantum Mechanics</i> , Teaching Assistant, Technical University of Munich
Fall 2015	<i>Quantum Field Theory</i> , Teaching Assistant, Technical University of Munich
Spring 2015	<i>Statistical Mechanics</i> , Teaching Assistant, Washington University in St. Louis
Fall 2013	<i>Quantum Mechanics</i> , Teaching Assistant, Washington University in St. Louis
Fall 2012	<i>Physics I</i> , Teaching Assistant, Washington University in St. Louis
Spring 2011	<i>Physics II</i> , Teaching Assistant, Washington University in St. Louis
Spring 2011	<i>Special Relativity</i> , Teaching Assistant, Washington University in St. Louis
Spring 2006	<i>Engineering Mathematics</i> , Teaching Assistant, University of Tehran
Spring 2006	<i>Electronics Lab I</i> , Teaching Assistant, University of Tehran
Fall 2005	<i>Engineering Mathematics</i> , Teaching Assistant, University of Tehran
Summer 2005	<i>Electronics Lab II</i> , Teaching Assistant, University of Tehran

Computer Skills

Python, Cython, C/C++, Bash

MATLAB, Mathematica

Public Scripts

[gauge_tools](#) A Cython/Python package for Monte Carlo simulations of gauge theories.

[meson_mass](#) A Python package for mesons masses from lattice-QCD simulations.

Selected Publications

- [1] J. Komijani, P. Petreczky and J. H. Weber, “Strong coupling constant and quark masses from lattice QCD,” *Prog. Part. Nucl. Phys.* **113**, 103788 (2020) [arXiv:2003.11703]
[INSPIRE-HEP entry](#)
- [2] C.M. Bender, J. Komijani, Q. Wang, “Nonlinear eigenvalue problems for generalized Painlevé equations,” *J. Phys. A: Math. and Theor.* **52**, 315202 (2019) [arXiv:1903.10640]
- [3] C.T.H. Davies *et al.*, “Determination of the quark condensate from heavy-light current-current correlators in full lattice QCD,” *Phys. Rev. D* **100**, 034506 (2019) [arXiv:1811.04305]
[INSPIRE-HEP entry](#)
- [4] A. Bazavov *et al.*, “Up-, down-, strange-, charm-, and bottom-quark masses from four-flavor lattice QCD,” *Phys. Rev. D* **98**, 054517 (2018) [arXiv:1802.04248]
[INSPIRE-HEP entry](#)
- [5] A. Bazavov *et al.*, “*B*- and *D*-meson leptonic decay constants from four-flavor lattice QCD,” *Phys. Rev. D* **98**, 074512 (2018) [arXiv:1712.09262]
[INSPIRE-HEP entry](#)
- [6] N. Brambilla, J. Komijani, A.S. Kronfeld, A. Vairo, “Relations between Heavy-light Meson and Quark Masses,” *Phys. Rev. D* **97**, 034503 (2018) [arXiv:1712.04983]
[INSPIRE-HEP entry](#)
- [7] J. Komijani, “A discussion on leading renormalon in the pole mass,” *JHEP* **1708**, 062 (2017) [arXiv:1701.00347]
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- [8] C.M. Bender and J. Komijani, “Painlevé Transcendents and \mathcal{PT} -Symmetric Hamiltonians,” *J. Phys. A: Math. and Theor.* **48**, 475202 (2015) [arXiv:1502.04089]
- [9] A. Bazavov *et al.*, “Charmed and light pseudoscalar meson decay constants from four-flavor lattice QCD with physical light quarks,” *Phys. Rev. D* **90**, 074509 (2014) [arXiv:1407.3772]
[INSPIRE-HEP entry](#)
- [10] C.M. Bender, A. Fring and J. Komijani, “Nonlinear Eigenvalue Problems,” *J. Phys. A: Math. and Theor.* **47**, 235204 (2014) [arXiv:1401.6161]

- [11] C. Bernard and J. Komijani, “Chiral Perturbation Theory for All-Staggered Heavy-Light Mesons,” *Phys. Rev. D* **88**, 094017 (2013) [arXiv:1309.4533]
[INSPIRE-HEP entry](#)

References

Claude Bernard	Washington University in St. Louis, cb_at_lump.wustl.edu
Carl M. Bender	Washington University in St. Louis, cmb_at_wustl.edu
Andreas S. Kronfeld	Fermi National Accelerator Laboratory, ask_at_fnal.gov
Doug Toussaint	University of Arizona, doug_at_physics.arizona.edu
Nora Brambilla	Technical University of Munich, nora.brambilla_at_ph.tum.de
Christine Davies	University of Glasgow, Christine.Davies_at_glasgow.ac.uk
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