

Muhammad Ali Paracha

Associate Professor
School of Natural Sciences

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About

Dr. Muhammad Ali Paracha is working as Associate Professor in the School of Natural Sciences. Dr. Muhammad Ali Paracha has a PhD in High Energy Physics. Dr. Muhammad Ali Paracha has published 21 research articles & conference papers having a citation count of 308, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in High Energy Physics	2006 - 2012
Quaid-i-Azam University , Pakistan	
MPhil in High Energy Physics	2003 - 2005
Quaid-i-Azam University , Pakistan	
MS in Physics	2001 - 2003
Quaid-i-Azam University , Pakistan	

Experience

Associate Professor	2020- Present
School of Natural Sciences	
Associate Professor	2018 - 2020
School of Natural Sciences	
Associate Professor	2017 - 2018
School of Natural Sciences	
Assistant Professor	2015 - 2017
School of Natural Sciences	
Assistant Professor	2012 - 2015
School of Natural Sciences	
Lecturer	2012 - 2012
School of Natural Sciences	
Visiting Scientist	2018 - 2018
Institute of High Energy Physics (IHEP) , Institute of High Energy Physics, University of Chinese Academy of Sciences, Beijing	
Postdoctoral fellow	2013 - 2015
Universdade Cruzeiro do Sul, Sao Paulo Brazil , LABORATÓRIO DE FÍSICA TEÓRICA E COMPUTACIONAL UNIVERSIDADE CRUZEIRO DO SUL , LIBERDADE , SAO PAULO	

Research Articles

Reinvestigating the semileptonic $B \rightarrow d (s) \tau^+ \tau^-$ decays in the model independent scenarios and leptoquark models	2025
Zhuo-Ran Huang Faisal Munir Nimra Farooq Muhammad Ali Paracha Ying Li	
Physical Review D , Volume:111, Issue:11, Article Number 115035	
Impact Factor: 5.300 Quartile: 1	
DOI: https://doi.org/10.1103/PhysRevD.111.115035	
Effects of family non-universal Z' model in angular observables of $B \rightarrow \rho^0 \mu^+ \mu^-$ decays	2024
Nimra Farooq Marwah Zaki Muhammad Ali Paracha Faisal Munir Bhutta	
Chinese Physics C , Volume 48, Number 10, Article Number 103107	
Impact Factor: 3.600 Quartile: 1 Citations: 1	

DOI: 10.1088/1674-1137/ad5e65

Footprints of New Physics in the angular distribution of $B_c \rightarrow D s^+ (\rightarrow D s \gamma, (D s \pi)) l^+ l^-$ decays

2023

Marwah Zaki Muhammad Ali Paracha Faisal Munir Bhutta

Nuclear Physics B, Volume 992, Article Number: 116236

Impact Factor: 3.045 | Quartile: 2 | Citations: 7

DOI: 10.1016/j.nuclphysb.2023.116236

New physics in $b \rightarrow s \ell \ell$ anomalies and its implications for the complementary neutral current decays

2022

Muhammad Ali Paracha Faisal Munir Bhutta Zhuoran Huang Cai Dian Lu Wenyu Wang

Nuclear Physics B, Volume 979, Article Number 115763

Impact Factor: 3.045 | Quartile: 2 | Citations: 12

DOI: <https://doi.org/10.1016/j.nuclphysb.2022.115763>

Investigating family non universal Z' model via semileptonic $B \rightarrow a_1 \ell^+ \ell^-$ decays

2020

Muhammad Ali Paracha

Physica Scripta, Volume 95, Article Number 105304

Impact Factor: 2.487 | Quartile: 2 | Citations: 1

DOI: <https://dx.doi.org/10.1088/1402-4896/abb110>

Testing leptoquark and Z_0 models via $B \rightarrow K_1^0 \ell^+ \ell^-$ decays

2019

Zhuo-Ran Huang Muhammad Ali Paracha Ishtiaq Ahmed Cai-Dian Lu

Physical Review D, Volume: 100, Issue: 5, Article Number: 055038

Impact Factor: 4.833 | Quartile: 1 | Citations: 13

DOI: DOI: 10.1103/PhysRevD.100.055038

Footprints of new physics in $b \rightarrow c \ell \ell$ transitions

2018

Zhuo-Ran Huang Cai-Dian Lu Ying Li Muhammad Ali Paracha Chao Wang

Physical Review D, to be added

Impact Factor: 4.368 | Quartile: 1 | Citations: 90

DOI: 10.1103/PhysRevD.98.095018

Constraints on two-Higgs-doublet model parameters in light of rare B decays

2017

Mureed Hussain Muhammad Usman Muhammad Ali Paracha, Muhammad Jamil Aslam

PHYSICAL REVIEW D, Volume: 95 Issue: 7

Impact Factor: 4.394 | Quartile: 1 | Citations: 10

DOI: 10.1103/PhysRevD.95.075009

Couplings between the ρ and D and D^* mesons

2017

Bruno El-Bennich Muhammad Ali Paracha Craig D. Roberts Eduardo Rojas

PHYSICAL REVIEW D, Volume 95, Issue 3

Impact Factor: 4.394 | Quartile: 1 | Citations: 16

DOI: 10.1103/PhysRevD.95.034037

Insights into the Quark-Gluon Vertex from Lattice QCD and Meson Spectroscopy

2015

E. Rojas B. El-Bennich J. P. B. C. de Melo Muhammad Ali Paracha

FEW-Body Systems, Volume 56, Issue 6-9, Pages 639-644

Impact Factor: 0.558 | Quartile: 4 | Citations: 10

DOI: DOI:10.1007/s00601-015-1020-x

Pseudoscalar mesons with symmetric bound state vertex functions on the light front

2015

George H. S. Yabusaki Ishtiaq Ahmed Muhammad Ali Paracha J. P. B. C. de Melo Bruno El-Bennich

PHYSICAL REVIEW D, Volume 92, Issue 3, Article Number 034017

Impact Factor: 4.506 | Quartile: 2 | Citations: 17

DOI: 10.1103/PhysRevD.92.034017

Ward identities, $B \rightarrow V$ transition form factors and applications

2015

Muhammad Ali Paracha Bruno El-Bennich M. Jamil Aslam Ishtiaq Ahmed

Journal of Physics: Conference Series, Volume 630, Article Number 012050

Impact Factor: - | Citations: 6

DOI: doi:10.1088/1742-6596/630/1/012050

Imprints of CP-violation asymmetries in $\Lambda_b \rightarrow \Lambda l^+ l^-$ decay in a family non-universal Z' model

2015

Muhammad Ali Paracha Ishtiaq Ahmed M. Jamil Aslam

PROGRESS OF THEORETICAL PHYSICS, Volume 2015, Issue 3

Impact Factor: N/A Citations: 10 DOI: 10.1093/ptep/ptv017	
Effects of neutral Z' boson in $B_s \rightarrow \phi \ell^+ \ell^-$ decay with polarized ϕ and the unpolarized and polarized CP violation asymmetry <i>Ishtiaq Ahmed M. Jamil Aslam Muhammad Ali Paracha</i> <i>PHYSICAL REVIEW D</i>, Volume 89, issue 1 Impact Factor: 4.643 Quartile: 1 Citations: 5 DOI: 10.1103/PhysRevD.89.015006	2014
Impact of Z0 and universal extra dimension parameters on different asymmetries in $B_s \rightarrow \rho^0 \rho^0$ decays <i>Ishtiaq Ahmed M. Jamil Aslam Muhammad Ali Paracha</i> <i>PHYSICAL REVIEW D</i>, Volume 88, Issue 1 Impact Factor: 4.864 Quartile: 1 Citations: 9 DOI: 10.1103/PhysRevD.88.014019	2013
Fourth-generation standard model imprints in $B \rightarrow K^* l^+ l^-$ decays with polarized K <i>Aqeel Ahmed Ishtiaq Ahmed M. Jamil Aslam Muhammad Junaid Muhammad Ali Paracha</i> <i>PHYSICAL REVIEW D</i>, Volume 85, Issue 3, Article Number 034018 Impact Factor: 4.691 Quartile: 1 Citations: 6 DOI: 10.1103/PhysRevD.85.034018	2012
K-1(1270)-K-1(1400) mixing and the fourth generation standard model effects in $B \rightarrow K(1) l^+ l^-$ decays <i>Aqeel Ahmed Ishtiaq Ahmed Muhammad Ali Paracha Abdur Rehman</i> <i>PHYSICAL REVIEW D</i>, Volume 84, Issue 3, Article Number 033010 Impact Factor: 4.558 Quartile: 1 Citations: 15 DOI: 10.1103/PhysRevD.84.033010	2011
Semileptonic charmed B meson decays in universal extra dimension model <i>Muhammad Ali Paracha Ishtiaq Ahmed M. Jamil Aslam</i> <i>PHYSICAL REVIEW D</i>, Volume 84, Issue 3, Article Number 035003 Impact Factor: 4.558 Quartile: 1 Citations: 7 DOI: 10.1103/PhysRevD.84.035003	2011
Model independent analysis of the forward-backward asymmetry for the $B \rightarrow K_1 \mu^+ \mu^-$ decay <i>Ishtiaq Ahmed Muhammad Ali Paracha M. Jamil Aslam</i> <i>European Physical Journal C</i>, Volume 71, Issue 1 Impact Factor: 3.631 Quartile: 2 Citations: 11 DOI: 10.1140/epjc/s10052-010-1521-1	2011
Exclusive $B \rightarrow K_1 l^+ l^-$ decay in model with single universal extra dimension <i>Ishtiaq Ahmed Muhammad Ali Paracha M. Jamil Aslam</i> <i>European Physical Journal C</i>, Volume 54, Issue 4, Pages 591-599 Impact Factor: 2.805 Quartile: 2 Citations: 38 DOI: 10.1140/epjc/s10052-008-0553-2	2008
Form factors, branching ratio and forward-backward asymmetry in $B \rightarrow K_1 \rho^0 \rho^0$ decays <i>Muhammad Ali Paracha Ishtiaq Ahmed M. Jamil Aslam</i> <i>European Physical Journal C</i>, Volume 52, Issue 4, Pages 967-973 Impact Factor: 3.255 Quartile: 2 Citations: 24 DOI: 10.1140/epjc/s10052-007-0422-4	2007