

Curriculum Vitae

Bhavik Kodrani

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Personal Details

Date of Birth	23rd January, 1982
Nationality	Indian
Marital Status	Married

Research and Professional Experience

9/2011 - Present	Postdoctoral Fellow, Tata Institute of Fundamental Research, Mumbai
2/2011 - 8/2011	Research Associate, Center of High Energy physics, Indian Institute of Science, Bangalore
7/2005 - 2/2011	Senior Research Fellow, Physical Research Laboratory, Ahmedabad, India
7/2005 - 8/2007	Junior Research Fellow, Physical Research Laboratory, Ahmedabad, India
2/2005 - 7/2005	Project associate, Physical Research Laboratory, Ahmedabad, India
8/2004 - 1/2005	Visiting Lecturer, Tolani College of Arts and Science, Adipur, India

Education

7/2005 - 2/2011	PhD : Physical Research Laboratory, Ahmedabad, India Thesis title : Studies of models of fermion masses and mixing Thesis Adviser : Prof. Anjan S. Joshipura
7/2002 - 6/2004	M.Sc. Gujarat University, Ahmedabad, India
7/1999 - 6/2002	B.Sc. Gujarat University, Ahmedabad, India

Research Interests

CP Violation, Flavor physics, Neutrino Physics, Physics Beyond Standard model

Publications

1. Minimal flavor violations and tree level FCNC, A. S. Joshipura, B. P. Kodrani, Phys. Rev. **D77**, 096003 (2008). [arXiv:0710.3020 [hep-ph]].

2. Complex CKM matrix, spontaneous CP violation and generalized $\mu - \tau$ symmetry, A. S. Joshipura, B. P. Kodrani, Phys. Lett. **B670**, 369-373 (2009). [arXiv:0706.0953 [hep-ph]].
3. Fermion Masses and Mixings in a mu-tau symmetric SO(10), A. S. Joshipura, B. P. Kodrani and K. M. Patel, Phys. Rev. D **79**, 115017 (2009) [arXiv:0903.2161 [hep-ph]].
4. Higgs induced FCNC as a source of new physics in $b \rightarrow s$ transitions, A. S. Joshipura, B. P. Kodrani, Phys. Rev. **D81**, 035013 (2010). [arXiv:0909.0863 [hep-ph]].
5. Fermion number conservation and two-Higgs-doublet models without tree-level flavor-changing neutral currents, A. S. Joshipura, B. P. Kodrani, Phys. Rev. **D82**, 115013 (2010). [arXiv:1004.3637 [hep-ph]].

Conferences/ Workshops/ Symposia :

1. Workshop in high energy physics Phenomenology (WHEPP) XII, 2-15 January 2012, Mahabaleshwer , India.
2. 16th International Symposium on Particles, Strings and Cosmology, 19 -23 July 2010, at Valencia, Spain

Talk given : Implications of CP violating 2HDM in B physics, arXiv : 1010.2347 [hep-ph].
3. Workshop in high energy physics Phenomenology (WHEPP) XI, 2-12 January 2010, Physical Research Laboratory, Ahmedabad, India.
4. Future of Neutrino Physics : 17 - 24 April 2009, Tata Institute of Fundamental Research, Mumbai, India.
5. NuGOA 2009 : 8 - 15 April 2009, International Center , Goa, India.
6. Nuhorizons : 7 - 9 January 2009, Harish Chandra Research Institute, Allahabad, India.
7. XVIII DAE - BRNS High Energy Physics Symposium : 14 - 18 December, Banaras Hindu University. Varanasi, India.

Talk given : Signatures of tree level FCNCs in $b \rightarrow s$ transitions.

8. Workshop in high energy physics phenomenology (WHEPP) X, 2 - 13 January 2008, Institute of Mathematical Sciences, Chennai, India.

Talk given at Young Students Forum : Complex CKM matrix, spontaneous CP violation and generalized $\mu - \tau$ symmetry.

Schools

1. Summer School on Particle Physics, 11 - 22 June, 2007, International center of Theoretical Physics, Trieste, Italy.
2. SERC Main School, 18 Jan - 7 February 2007, University of Hyderabad, Hyderabad, India.
3. SERC Prep school, 30 Oct - 18 November 2006, Indian Institute of Sciences, Bangaluru, India.

Work in Progress

Model independent phenomenological study of CP violation in decay processes $D^0 \rightarrow K^+ K^-$, $D^0 \rightarrow \pi^+ \pi^-$ in light of new LHCb and CDF results for difference CP asymmetry

References

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