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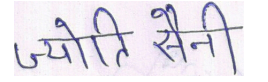
This is to certify that the thesis titled *Probing New Physics Through Bottom and Top Quark Decays*, submitted by *Jyoti Saini (P15PH002)* to the Indian Institute of Technology Jodhpur for the award of the degree of *Doctor of Philosophy*, is a bonafide record of the research work done by her under my supervision. To the best of my knowledge, the contents of this report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.



Dr. Ashutosh Kumar Alok
Ph.D. Thesis Supervisor

Declaration

I hereby declare that the work presented in this thesis entitled *Probing New Physics Through Bottom and Top Quark Decays* submitted to the Indian Institute of Technology Jodhpur in partial fulfillment of the requirements for the award of the degree of Doctor of Philosophy, is a bonafide record of the research work carried out under the supervision of Dr. Ashutosh Kumar Alok. The contents of this thesis in full or in parts, have not been submitted to, and will not be submitted by me to, any other Institute or University in India or abroad for the award of any degree or diploma.



Jyoti Saini
P15PH002

List of Publications

This thesis is based on the following publications:

1. Dinesh Kumar, **Jyoti Saini**, Shireen Gangal, Sanjeeda Bharati Das, ”*Probing new physics through $B_s^* \rightarrow \mu^+ \mu^-$ decay*”, Phys. Rev. D **97**, 035007 (2018). (IF:4.83)
2. Suman Kumbhakar, **Jyoti Saini**, ”*New physics effects in purely leptonic B_s^* decays*”, Eur. Phys. J. C, **79**, 394 (2019). (IF:5.64)
3. **Jyoti Saini**, Dinesh Kumar, Shireen Gangal, Sanjeeda Bharati Das, ”*Probing Signatures of Beyond Standard Model Physics Through $B_s^* \rightarrow \mu^+ \mu^-$ decay*”, Springer Proc. Phys. **234** (2019) 479-482.
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5. Suman Kumbhakar, **Jyoti Saini**, ”*Flavor signatures of complex anomalous tcZ couplings*”, Eur. Phys. J. Plus **135**, 330 (2020). (IF:3.23)
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