Certificate

This is to certify that this dissertation, entitled "Estimating $ZZ \to \ell\ell\nu\nu$ background in the $\ell\ell + E_T^{\rm miss}$ final state using $Z\gamma \to \ell\ell\gamma$ data", submitted towards the partial fulfilment of the BS-MS dual degree programme at the Indian Institute of Science Education and Research (IISER), Pune, represents the work carried out by Mangesh Sonawane at the Deutsches Elektronen-Synchrotron (DESY), Hamburg, under the supervision of Dr. Beate Heinemann, Professor of Experimental Particle Physics at the Institute of Physics, University of Freiburg, during the academic year 2017-2018.

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29-03-2018

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