INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI
SHORT ABSTRACT OF THESIS

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Programme of Study	:	Ph.D.

Thesis Title:
Search for the decay $B_s^0 \to J/\psi\pi^0$ at Belle experiment

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SHORT ABSTRACT

We report the first search for the decay $\mathrm{B}_s^0 \to J/\psi\pi^0$ using 121.4 fb^{-1} of data collected at $\Upsilon(5S)$ resonance state by the Belle detector at the KEKB asymmetric energy e^+e^- collider located at the High Energy Accelerator Research Organisation, Japan. We observe no signal and report an upper limit on the branching fraction, $\mathrm{B}(\mathrm{B}_s^0 \to J/\psi\pi^0)$ of 1.21×10^{-5} at 90% confidence level. This result is the most stringent, improving the previous bound by two orders of magnitude.