

DEUTSCHES ELEKTRONEN-SYNCHROTRON
Ein Forschungszentrum der Helmholtz-Gemeinschaft



DESY-THESIS-2026-009
May 2026

**Measurement of Charm and Beauty Quark Production
Cross Sections with the CMS Experiment at the LHC
at a Center of Mass Energy of 5 TeV**

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ISSN 1435-8085

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