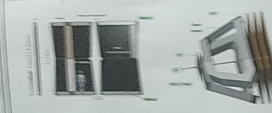


The Scintillating Fibre Tracker for the LHCb Upgrade

UNIVERSITY OF CAMBRIDGE PARTICLE PHYSICS, UNIVERSITY OF SUSSEX PARTICLE PHYSICS, UNIVERSITY OF SHEFFIELD PARTICLE PHYSICS

The Scintillating Fibre Tracker (SFT)



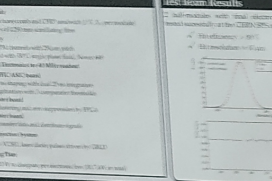
Requirements

- High resolution ($\sim 100 \mu\text{m}$)
- Large coverage ($\sim 10 \text{ m}^2$)
- High rate capability ($\sim 10^7 \text{ Hz}$)
- Highly reliable ($> 99.999\%$)
- Highly accurate ($\sim 100 \mu\text{m}$)

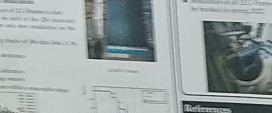
Key Features

- High resolution ($\sim 100 \mu\text{m}$)
- Large coverage ($\sim 10 \text{ m}^2$)
- High rate capability ($\sim 10^7 \text{ Hz}$)
- Highly reliable ($> 99.999\%$)
- Highly accurate ($\sim 100 \mu\text{m}$)

Test-Beam Results



Installation in the LHCb Upgrade



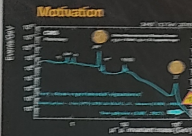
References



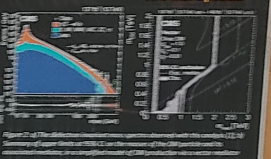
Search for New Physics in Leptonic Decays with the CMS Experiment at the LHC

V. Shubin, S. Khachatryan, A. Khachatryan, The CMS Collaboration

Motivation



The Last Updates



Conclusions

We did not observe any significant signs of new phenomena in leptonic decays. The observed branching ratios are consistent with the Standard Model predictions.

References

[1] CMS Collaboration, *Search for new physics in leptonic decays*, *Phys. Lett. B* **798**, 281-291 (2019)

[2] CMS Collaboration, *Search for new physics in leptonic decays*, *Phys. Lett. B* **798**, 281-291 (2019)