

## Tracking Efficiencies

- TrackCalib Twiki
  - JINST 10 P02007 [↗](#), "Measurement of the track reconstruction efficiency at LHCb", The LHCb collaboration (supersedes public note)
  - LHCb-PUB-2011-025 [↗](#) Public note on the **Measurement of the track finding efficiency**.
  - CERN-THESIS-2013-145 [↗](#) Michel De Cian's Thesis on "Track Reconstruction Efficiency and Analysis of  $B^0 \rightarrow K^0 \mu^+ \mu^-$  at the LHCb Experiment"
- People
  - Talks
  - Efficiency tables:

Data samples	Twiki page	Tables	Systematic	Latest changes
<b>2010</b> , Data Reco08 vs MC10	Results	ratio2010.root	0.4%	11 Jan 2012
<b>2011</b> , Data Reco10 vs MC10	Results	ratio2011.root	0.4%	11 Jan 2012
<b>2011</b> , Data Reco12 vs MC11	Results	ratio2011S17.root	0.6%	12 Sep 2012
<b>2012</b> , Data Reco13 (ICHEP stream) vs MC12	Results	ratio2012_ICHEP.root	0.4%	28 Aug 2012
<b>2012</b> , Data Reco13(a) vs MC12	Only long method	ratio_S19.root ratio_S19a.root	0.6%	12 Sep 2012
<b>2011</b> , Data Reco14 vs MC11 (Reco12)	Results	ratio2011S20MC17.root	0.4%	11 April 2013
<b>2012</b> , Data Reco14 vs MC 2012 (Reco14)	Results	ratio2012S20.root	0.4%	11 April 2013
<b>2015</b> , EM Data Reco15em/Turbo01em vs MC 2015 (Reco15em/Turbo01em)	Results	Ratio_2015_EM_folded.root	0.8%	22 November 2016
<b>2015</b> , EM Data Reco15em/Turbo01em vs MC 2015 (Reco15em/Turbo01em) - TRACK_GhostProb < 0.3	Results	Ratio_2015_EM_GP03_folded.root	0.8%	22 November 2016
<b>2015</b> , 5TeV Data Reco15a/Turbo01em vs MC 2015 (Reco15/Turbo01em) - TRACK_GhostProb < 0.3, Long method only	Results	Ratio_2015_5TeV_folded.root	0.8%	22 November 2016
<b>2015</b> , Data Reco15a/Turbo01a (nominal conditions) vs MC 2015 (Sim09a, Reco15/Turbo01a - Long method only	Results	Ratio_2015_25ns_Long.root	0.8%	18 October 2016
<b>2016</b> , Data Reco16/Turbo02a (nominal conditions) vs MC 2016 (Sim09a, Reco16/Turbo02 - Long method only	Results	Ratio_2016_Sim09a_Long.root	0.8%	04 November 2016

Sim09b samples	Twiki page	Tables	Systematic	Latest changes
<b>2015</b> , EM Data Reco15em/Turbo01em vs MC	Results	Ratio_2015_EM_Sim09b_Long.root	0.8%	20 March 2017

2015, Sim09b (Reco15em/Turbo01em)				
<b>2015</b> , EM Data Reco15em/Turbo01em vs MC 2015, Sim09b (Reco15em/Turbo01em) - TRACK_GhostProb < 0.3	Results	Ratio_2015_EM_GP03_Sim09b_Long.root	0.8%	20 March 2017
<b>2015</b> , 5TeV Data Reco15a/Turbo01em vs MC 2015, Sim09b (Reco15/Turbo01em) - TRACK_GhostProb < 0.3, Long method only	Results	Ratio_2015_5TeV_GP03_Sim09b_Long.root	0.8%	20 March 2017
<b>2015</b> , Data Reco15a/Turbo01a (nominal conditions) vs MC 2015 (Sim09b, Reco15/Turbo01a - Long method only	Results	Ratio_2015_Sim09b_Long.root	0.8%	20 March 2017
<b>2016</b> , Data Reco16/Turbo02a (nominal conditions) vs MC 2016 (Sim09b, Reco16/Turbo02 - Long method only	Results	Ratio_2016_Sim09b_Long.root	0.8%	20 March 2017

<b>Sim09b special binning samples</b>	<b>Twiki page</b>	<b>Tables</b>	<b>Systematic</b>	<b>Latest changes</b>
<b>2015</b> , Data Reco15a/Turbo01a (nominal conditions) vs MC 2015 (Sim09b, Reco15/Turbo01a) - Final method	Results	Ratio_2015_25ns_Sim09b_P-ETA_Final_FineInP.root	0.8%	28 November 2017
<b>2016</b> , Data Reco16/Turbo02a (nominal conditions) vs MC 2016 (Sim09b, Reco16/Turbo02) - Long method only	Results	Ratio_2016_25ns_Sim09b_P-ETA_Long_FineInP.root	0.8%	28 November 2017

- Discussion on error estimates

## Information for physics working groups

- Correcting for the tracking efficiency in your MC
- Information on the absorption of hadrons

## Technical information about implementation / examples

Note that the locations might change over time and the links therefore become obsolete...

## Run II (trigger)

- [J/psi Tracking efficiency lines in the Trigger \(Run II\) - lines](#)
- [J/psi Tracking efficiency lines in the Trigger \(Run II\) - tracking](#)
- [J/psi Tracking efficiency lines in the Trigger \(Run II\) - shared particles](#)

## Run I (stripping)

- [MuonTT tracking efficiency lines in Stripping \(Run I\)](#)
- [VeloMuon tracking efficiency lines in Stripping \(Run I\)](#)
- [DownstreamMuon tracking efficiency lines in Stripping \(Run I\)](#)

## Misc

- [Standalone example to run MuonTT tracking](#)
- [TupleTool for getting tracking efficiency from MuonTT](#)
- [Options to run Velo-Calo tracking](#)

## Run 2 preparations

Presentations given regarding the online/offline measurement in Run 2:

- [HLT Ops Meeting 13.03.15](#)
- [58th Analysis & Software Week 19.01.15](#)
- [EMTF Meeting 12.01.15](#)
- [74th LHCb Week 01.12.14](#)
- [Tracking and Alignment Meeting 20.11.14](#)
- [PPTS Meeting 20.10.14](#)
- [HLT Ops Meeting 03.10.14](#)
- [HLT Ops Meeting 09.05.14](#)

## Old stuff

- [Status/Results \(obsolete\)](#)
- [How to create the efficiency ratio tables \(obsolete\)](#)
- [Stripping13b Validation](#)

-- JeroenVanTilburg - 11-Jan-2012

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This topic: [Sandbox > RenataKopecna1Sandbox](#)

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