$D^+ ! [K^+\grave{K}] \quad {}_1{}^+.$
ffi
s

10. Variables are usually italic: V is a voltage (variable), while 1 V is a volt (unit). Also in combined expressions: Q-value, z-scale, R-parity etc.

11. Subscripts and superscripts are roman type when they refer to a word (such as T for transverse) and italic when they refer to a variable (such as t for time): p_{T}, $\acute{m}_{\mathrm{s}}$, t_{rec}.

12. Standard function names are in roman type: e.g. cos, sin and exp.

13. Figure, Section, Equation, Chapter and Reference should be abbreviated as Fig., Sect. (or alternatively Sec.), Eq., Chap. and Ref. respectively, when they refer to a particular (numbered) item, except when they start a sentence. Table and Appendix are not abbreviated. The plural form of abbreviation keeps the point after the s, e.g. Figs. 1 and 2. Equations may be referred to either with ("Eq. (1)") or without ("Eq. 1") parentheses, but it should be consistent within the paper.

14. Common abbreviations derived from Latin such as "for example" (e.g.), "in other words" (i.e.), "and so forth" (etc.), "and others" (et al.), "versus" (vs.) can be used, with the typography shown, but not excessively; other more esoteric abbreviations should be avoided.

15. Units, material and particle names are usually lower case if spelled out, but often capitalised if abbreviated: amps (A), gauss (G), lead (Pb), silicon (Si), kaon (K), but proton (p).

16. Counting numbers are usually written in words if they start a sentence or if they have a value of ten or

› In the offline selection, trigger signals are associated with reconstructed particles. Selection requirements can therefore be made on the trigger selection itself and on whether the decision was due to the signal candidate, other particles produced in the pp collision, or a combination of both.

A good example of a description of long and downstream K^0_S is given in Ref. [14]:

› Decays of $K^0_S ! \pi^+\pi^-$ are reconstructed in two different categories: the first involving K^0_S mesons that decay early enough for the daughter pions to be reconstructed in the vertex detector; and the second containing K^0_S that decay later such that track segments of the pions cannot be formed in the vertex detector. These categories are referred to as long and downstream, respectively. The long category has better mass, momentum and vertex resolution than the downstream category.

The description of our software stack for simulation is often causing trouble. The following paragraph can act as inspiration but with variations according to the level of detail required and if mentioning of e.g. Photos is required.

› In the simulation, pp collisions are generated using Pythia [15] (In case only Pythia 6 is used, remove *Sjostrand:2007gs from this citation; if only Pythia 8 is used, then reverse the order of the papers in the citation.) with a specific LHCb configuration [16]. Decays of unstable particles are described by EvtGen [17], in which final-state radiation is generated using Photos [18]. The interaction of the generated particles with the detector, and its response, are implemented using the Geant4 toolkit [19] as described in Ref. [20].

A quantity often used in LHCb analyses is χ^2_{IP}. When mentioning it in a paper, the following wording could be used: "χ^2_{IP} with respect to any primary interaction vertex greater than X, where χ^2_{IP} is defined as the difference in the vertex-fit χ^2_{IP} of a given PV reconstructed with and without the track under consideration/being considered."[3]

Many analyses depend on boosted decision trees. It is inappropriate to use TMVA as the reference as that is merely an implementation of the BDT algorithm. Rather it is suggested to write: "In this paper we use a boosted decision tree (BDT) [21, 22] to separate signal from background".

When describing the integrated luminosity of the data set, do not use expressions like "1.0 fb^{-1} of data", but e.g. "data sample corresponding to an integrated luminosity of 1.0 fb^{-1}", or "a sample of data obtained from 3 fb^{-1} of integrated luminosity".

For analyses where the periodical reversal of the magnetic field is crucial, e.g. in measurements of direct CP violation, the following description can be used as an example phrase: "The magnetic field deflects oppositely charged particles in opposite directions and this can lead to detection asymmetries. Periodically reversing the magnetic field polarity throughout the data-taking almost cancels the effect. The configuration with the magnetic field pointing upwards (downwards), MagUp (MagDown), bends positively (negatively) charged particles in the horizontal plane towards the centre of the LHC ring." Only use the MagUp, MagDown symbols if they are used extensively in tables or figures.

6 Figures

A standard LHCb style file for use in production of figures in Root is in the Urania package

an example in the Rare Decay group we have several different analyses looking for a measurement of $C_{(eff)}^{0}$

548 and O_{7}^{0}

549 7:

550 C List of all symbols

551 C.1 Experiments

\lhcb	LHCb	\atlas	ATLAS	\cms	CMS
\alice	ALICE	\babar	BaBar	\belle	Belle
\cleo	CLEO	\cdf	CDF	\dzero	D0
\aleph	ALEPH	\delphi	DELPHI	\opal	OPAL
\lthree	L3	\sld	SLD	\cern	CERN
\lhc	LHC	\lep	LEP	\tevatron	Tevatron
552 \belletwo	Belle II	\bfactory	B-Factory	\bfactories	B-Factories

553 C.1.1 LHCb sub-detectors and sub-systems

\velo	VELO	\rich	RICH	\richone	RICH1
\richtwo	RICH2	\ttracker	TT	\intr	IT
\st	ST	\ot	OT	\herschel	HeRSCheL
\spd	SPD	\presh	PS	\ecal	ECAL
\hcal	HCAL	\MagUp	MagUp	\MagDown	MagDown
\ode	ODE	\daq	DAQ	\tfc	TFC
\ecs	ECS	\lone	L0	\hlt	HLT
554 \hltone	HLT1	\hlttwo	HLT2		

555 C.2 Particles

556 C.2.1 Leptons

\electron	e	\en	$\grave{e}$	\ep	e^{+}
\epm	$\mathring{e}$	\epem	$e^{+}\grave{e}$	\muon	—
\mup	$—^{+}$	\mun	$\grave{—}$	\mumu	$—^{+}\grave{—}$
\tauon	fi	\taup	fi^{+}	\taum	$\grave{fi}$
\tautau	$fi^{+}\grave{fi}$	\lepton	‘	\ellm	$\grave{‘}$
\ellp	$‘^{+}$	\ellell	$‘^{+}\grave{‘}$	\neu	

\neub		\neue		\neueb	
			e		e
\neum		\neumb		\neut	
	—		—		fi
\neutb		\neul		\neulb	
557	fi		‘		‘

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