COMBINED_LOPES_nA_runs_5534-6821_ROOT

all LOPES events included in combined analysis, no data arrays included

general information

Set name	COMBINED_LOPES_nA_runs_5534-6821_ROOT
Data selection	comb_1
Data format	ROOT
Number of events	general 1430 combined 1430 lopes 1430
Zip-file name / size	COMBINED_LOPES_nA_runs_5534-6821_ ROOT.zip / 320 kB
Data file names / sizes	events.root / 320 MB
Creation date	20.4.2020

COMBINED quantities selected

Quantity	Description	Range	Cut
E	Estimated primary energy	10^{15} -10^{19} eV	full range
Xc	X-core position	-500 - +91 m	full range
Yc	Y-core position	-550 - +91 m	full range
Ze	Zenith angle	0° - 30°	full range
Az	Azimuth angle	0° - 360°	full range
Ne*	Number of e/γ particles	1e3.2 / 1e4.8 – 1.0e9	full range
Nmu	Number of Muons	1000 – 1.9e9	full range
Age	Shower age	0.15 – 1.48	full range

* for Ne the range depends on the reconstructed shower core position; see manual

GENERAL quantities selected

Quantity	Description	Range	Cut
T	Air temperature	-20 ° - +50°	full range
P	Air pressure	960 -1040 hPa	full range
Gt	Global time (sec's since 1.1.1970)	1,078,737,917 – 1,288,855,193	full range
Mt	Micro time	0 – 999,999,999	full range
DateTime	Date & Time	8.3.2004 – 4.11.2010	full range
R	Run number	5534-6821	cut
Ev	Event number	1 – 4,100,000	full range
UUID	Universal Unique Identifier		full range

LOPES quantities selected

Quantity	Description	Range	Cut
EfieldMaxAbs	maximum atmospheric electric field	0 - 50,000 V/m	
Azimuth EW & NS	azimuth of LOPES CC beam; EW & NS	0 – 360°	
Elevation EW & NS	elevation of CC beam; EW & NS	0 – 360°	
CC Height EW & NS	amplitude of CC beam; EW & NS	0 – 20 µV/m/MHz	
XHeight EW & NS	amplitude of X-beam; EW & NS	0 – 20 µV/m/MHz	
ConeAngle EW & NS	cone angle of wavefront; EW & NS	0 – 0,1 rad	
NCCBeanAnt EW & NS	nr of antennas contributing; EW & NS	0 – 30	
Eta EW & NS	slope parameter of LDF; EW & NS	-0.04 - 0.11 /m	
Eps EW & NS	ampl parameter of LDF; EW & NS	-0.04 - 0.11 µV/m/MHz	
Geomag_Angle	angle between geomagnetic field and KASCADE shower axis	0 – 120 °	
Geomag_AngleG	angle between geomagnetic field and GRANDE shower axis	0 – 120 °	
Reconstruction	angle between geomagnetic field and GRANDE shower axis	65 or 71	
LOPES Comp ID	LOPES identifier	1 or 1	