KASCADE-LOPES_runs_5534-6821_ASCII

general information

Set name	KASCADE-LOPES_runs_5534-6821_ASCII
Data selection	OCEANUS
Data format	ASCII
Number of events	general 3,058 array 769 grande 2,763 lopes 3,058
Zip-file name / size	KASCADE-LOPES_runs_5534-6821_ASCII.zip / 542 kB
Data file names / sizes	array.txt / 75 kB general.txt / 348 kB lopes.txt / 732 kB grande.txt / 237 kB row_mapping.txt / 52 kB
Creation date	20.4.2020
Application	Daten analysis when LOPES has recorded data

KASCADE quantities selected

Quantity	Description	Range	Cut
E	Estimated primary energy	10^{13} -10^{19} eV	full range
Xc	X-core position	-91 - +91 m	full range
Yc	Y-core position	-91 - +91 m	full range
Ze	Zenith angle	0° - 60°	full range
Az	Azimuth angle	0° - 360°	full range
Ne	Number of e/γ particles	100 - 500,000,000	full range
Nmu	Number of Muons	100 - 50,000,000	full range
Age	Shower age	0.1 – 1.48	full range

GRANDE quantities selected

Quantity	Description	Range	Cut
Xc	X-core position Grande	-500 - +100 m	full range
Yc	Y-core position Grande	-600 - + 100 m	full range
Ze	Zenith angle Grande	0° - 40°	full range
Az	Azimuth angle Grande	0° - 360°	full range
Nch	Number of charged particles Grande	11111 - 1,000,000,000	full range
Nmu	Number of Muons Grande	1500 - 100,000,000	full range
Age	Shower age Grande	-0.385 – +1.488	full range

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)	1,133,562,309 – 1,256,527,520	cut
Mt	Micro time	0 – 999,999,999	full range
DateTime	Date & Time	2.12.2005 – 26.10.2009	cut
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
EfieldAbyMax	maximum atmospheric electric field	0.0 – 50000.0	full range
AzL_EW _NS	azimuth of LOPES CC beam; EW & NS	0.0 – 360.0°	full range
ElL_EW & _NS	elevation of CC beam; EW & NS	40 – 90°	full range
CCheight_EW & _NS	amplitude of CC beam; EW & NS	0.0 - 20.0 µV/m/MHz	full range
Xheight_EW & _NS	amplitude of X-beam; EW & NS	0.0 - 20.0 µV/m/MHz	full range
coneAngle_EW & _NS	cone angle of wavefront; EW & NS	0.0 - 0.1 rad	full range
NCCbeanAntennas_EW & _NS	nr of antennas contributing; EW & NS	0 – 30	full range
eta_EW & _NS	slope parameter of LDF; EW & NS	-0.04 - 0.11 1/m	full range
eps_EW & _NS	amplitude parameter of LDF; EW & NS	0.0 - 100.0 µV/m/MHz	full range
rmsCCbeam_EW & _NS	RMS of CC beam; EW & NS	0.0 - 20.0 µV/m/MHz	full range
Geomagnetic_Angle	angle between geomagnetic field and KASCADE shower axis	0.0 - 120.0°	full range
Geomagnetic_AngleG	angle between geomagnetic field and GRANDE shower axis	0.0 - 120.0°	full range
reconstruction	LOPRES reconstruction done with ‘A’ or ‘G’	65 or 71	full range
LopesCompID	LOPES identifier	1 to 1	cut

remark

this data samples includes only events where LOPES has produced a valid reconstruction.