# COMBINED_SmallDataSample_nA_runs_4775-7039_ASCII

**every 40th event from the database is taken into account for this selection**

## general information

| | |
|---|---|
| Set name | COMBINED_SmallDataSample_nA_runs_4775-7039_ASCII |
| Data selection | comb_1s |
| Data format | ASCII |
| Number of events | general          390,888<br>combined        390,888<br>lopes                      36 |
| Zip-file name / size | COMBINED_SmallDataSample_nA_runs_4775-7039_<br>ASCII.zip              /  37 MB |
| Data file names / sizes | combined.txt       /  38,2 MB<br>general.txt          /  44,4 MB<br>lopes.txt             /    2,7 kB<br>row_mapping.txt    /    5,2 MB |
| Creation date | 16.4.2020 |
| Application | Quick tests of data samples and cuts to optimize requests |

## COMBINED quantities selected

| Quantity | Description | Range | Cut |
|---|---|---|---|
| E | Estimated primary energy | $10^{15}$ -$10^{19}$ eV | 1/40th |
| Xc | X-core position | -500 - +91 m | 1/40th |
| Yc | Y-core position | -550 - +91 m | 1/40th |
| Ze | Zenith angle | 0° - 30° | 1/40th |
| Az | Azimuth angle | 0° - 360° | 1/40th |
| Ne* | Number of e/$\gamma$ particles | 1e3.2 / 1e4.8 – 1.0e9 | 1/40th |
| Nmu | Number of Muons | 1000 – 1.9e9 | 1/40th |
| Age | Shower age | 0.15 – 1.48 | 1/40th |

* 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° | 1/40th |
| P | Air pressure | 960 -1040 hPa | 1/40th |
| Gt | Global time (sec's since 1.1.1970) | 1,078,737,917 – 1,288,855,193 | 1/40th |
| Mt | Micro time | 0 – 999,999,999 | 1/40th |
| DateTime | Date & Time | 8.3.2004 – 4.11.2010 | 1/40th |
| R | Run number | 4775 - 7039 | 1/40th |
| Ev | Event number | 1 – 4,100,000 | 1/40th |
| UUID | Universal Unique Identifier | | 1/40th |

## 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 | 0 or 1 | |