

## KASCADE-CALOR\_ReducedData\_runs\_0877-5496\_HDF5

### *general information*

|                         |  |           |  |
|-------------------------|--|-----------|--|
| Set name                | KASCADE-CALORR_educedData_runs_0877-5496_HDF5              |           |  |
| Data selection          | NABOO  |           |  |
| Data format             | HDF5   |           |  |
| Number of events        | general  | 2,525,527 |  |
|                         | array  | 2,502,665 |  |
|                         | calor  | 2,525,527 |  |
| Zip-file name / size    | KASCADECALOR_ReducedData _runs_0877-5496_HDF5.zip / 181 MB |           |  |
| Data file names / sizes | events.h5  | / 182 MB  |  |
| Creation date           | 15.5.2020  |           |  |
| Application             | Analysing data of the CALORIMETER and the KASCADE Array    |           |  |

### *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/ $\gamma$ 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 |

### *CALORIMETER quantities selected*

| Quantity | Description                | Range                     | Cut        |
|----------|----------------------------|---------------------------|------------|
| Nhad     | Number of Hadrons          | 1 – 511                   | cut        |
| Ehad     | Energy sum of Nhad Hadrons | 0, $10^{10} - 10^{16}$ eV | 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) | 894,645,350 –<br>1,134,213,640 | cut        |
| Mt       | Micro time                         | 0 – 999,999,999                | full range |
| DateTime | Date & Time                        | 8.5.1998 –<br>12.10.2005       | cut        |
| <b>R</b> | <b>Run number</b>                  | <b>877 - 5496</b>              | <b>cut</b> |
| Ev       | Event number                       | 1 – 4,100,000                  | full range |

Note: only Events with reconstructed Calorimeter data (Nhad>0) are included