

Olsson

Computer Note No. 36

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The Function EBEAM

The beam energy is often used in analysis programs. It is available as the 29th halfword in the event bank "HEAD". However, the beam energy is one of the few parameters of the event that are put into the data by human hand and is therefore liable to be in error. Indeed, it frequently happened that the beam energy was entered in units of GeV rather than MeV, or plainly as zero.

For this reason the function EBEAM is provided. It returns the proper beam energy in MeV and is called as follows:

```
EBM = EBEAM(HRUN)
```

The argument HRUN is a halfword holding the run number. HRUN is obtained by the statements:

```
IPHEAD = IDATA(IBLN('HEAD'))  
HRUN   = HDATA(2*IPHEAD + 10)
```

or, for SUPERVISOR users simply by including in the calling program the statements:

```
COMMON/CHEADR/HEAD(100)  
EQUIVALENCE (HRUN,HEAD(18))
```

The function EBEAM may be used also in Monte Carlo data, as long as the run number is less than 100.

EBEAM resides on the "general library": F11LHO.JADEGL and is updated as datataking continues.

