JADE Computer Note 57 This is JADEPR.TEXT(NOTE57)

P. Steffen, 82/06/29

# How to Use the Improved JET Chamber Calibration

1.) INCLUDE: KALIBRSC,KLREADSC (routines are on F11LHO.JADEGS)

2.) use file
FT32F001 DD DISP=SHR,DSN=F11PST.JCAL8292

3.) Comments:
This is a preliminairy version for those who want to try the improved calibration constants, which have been determined for the spring 198200001700 data, starting from run 10269. The beam vertex position for this period is constant. With the improved calibration constants one obtains

xv = -1.25, yv = -0.20.

This vertex can be used for a constraint track fit.
The new calibration constants can be tried also for the 1981 data. But it is not guarantied that there will be an improvement. Still the beam vertices have to be determined.
Up to now I obtained the following results with these improved calibration constants for momentum the resolution of 17.5 GeV muon-pairs:

| | |
|---|---|
| old calibration constants | sigma(p) / p = 53 % |
| new calibration constants | sigma(p) / p = 35 % |
| old calibration constants, vertex constraint | sigma(p) / p = 41 % |
| new calibration constants, vertex constraint | sigma(p) / p = 25 % |

[redacted]

Olsson

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