JADE - Computer Note 40

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Monte Carlo tracking through lead glass

The new lead glass tracking routine has the following features:

1. Better simulation of nuclear interactions in lead glass. π's and k's are treated the same.

2. Threshold of 300 MeV/c for Cerenkov light emission. 30% of the π's below 300 MeV/c deposit energy in the lead glass blocks.

3. No leakage for electromagnetic showers through the back faces of the lead glass blocks.

4. There is no smearing of γ ray energies. Smearing with $6\%/\sqrt{E}$ may be introduced by setting LFLAG(1) =.TRUE. in

```
LOGICAL * 1 LFLAG
COMMON/CFLAG/LFLAG(10)
```

5. There is no shower energy loss in the tank or in the coil.

The shower energy loss may be switched on by setting

```
L FLAG(2) = . TRUE.
```