

## Kinematic Fit

gammas pairing

A:  $\pi^0$  mass

B:  $\chi^2$  Probability

C:  $\chi^2$  Probability  $\times$  |Matrix Element|<sup>2</sup>

D: the angle between  $\pi^+$  and radiated  $\gamma$

E: |Matrix Element|<sup>2</sup>

### Correct Pairing Probability

| Algorithm | IB(%) | DE (%) | INT (%) |
|-----------|-------|--------|---------|
| A         | 33.0  | 49.7   | 40.5    |
| B         | 78.4  | 80.7   | 79.8    |
| C         | 96.0  | 79.0   | 88.9    |
| D         | 79.9  | 18.6   | 48.2    |
| E         | 89.1  | 29.3   | 61.7    |