

**Comparison:  
0.6Jx1CP, 6Jx1CP, and 0.6Jx10CPs**

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## Common Parameters

### Electron beam

**Ebeam = 1.3 GeV**

**Ne/bunch =  $1 \times 10^{10}$**

**beta\_horizontal = 0.16 m**

**beta\_vertical = 0.16 m**

**emittance\_horizontal =  $6.25 \times 10^{-10}$**

**emittance\_vertical =  $6.25 \times 10^{-10}$**

**sigma\_horizontal = 10 micron (\*)**

**sigma\_vertical = 10 micron (\*)**

**sigma\_longitudinal = 0.2 mm**

**(\* 10 CPs: in the first collision point)**

### Laser beam (for each collision point)

**sigma\_rateral = 5 micron**

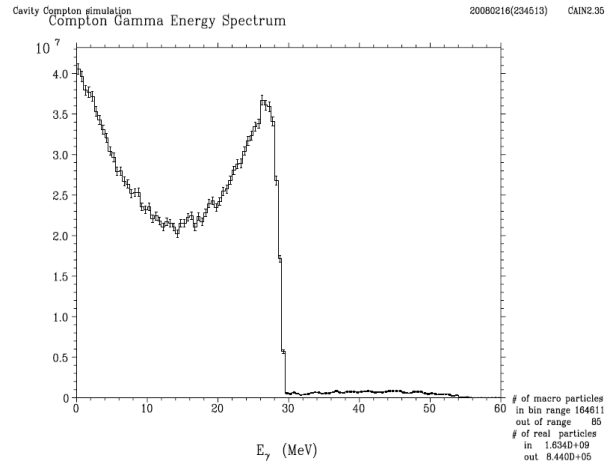
**sigma\_longitudinal = 0.24 mm**

### Laser Electron Crossing Angle

**0.087 rad (5 degree)**

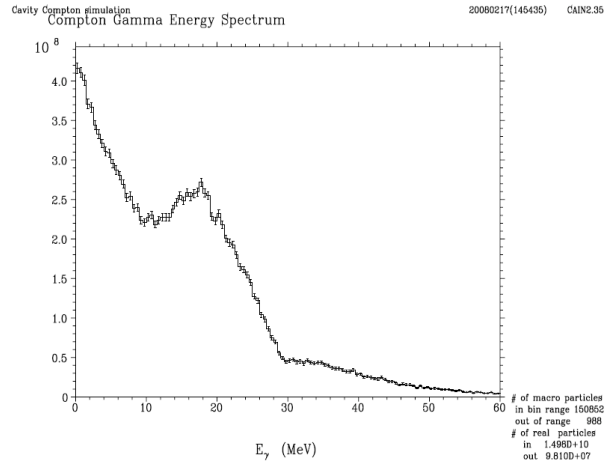
# Gamma-ray Energy Distribution

**0.6J x 1CP**



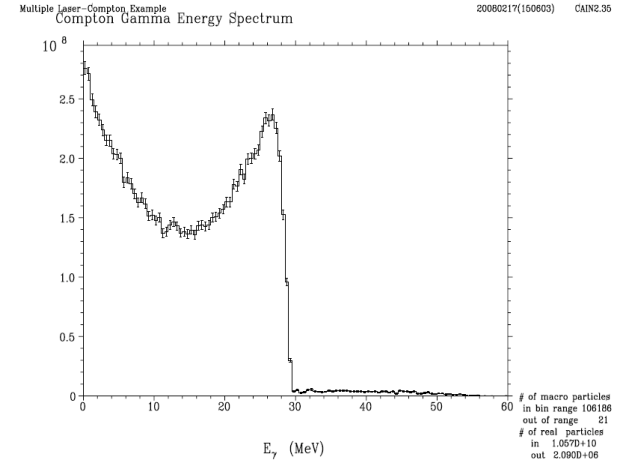
**$N_g = 1.6 \times 10^9$**

**6J x 1CP**



**$N_g = 1.5 \times 10^{10}$**

**0.6J x 10CPs**



**$N_g = 1.1 \times 10^{10}$**

# Electron Energy Distribution after Collision(s)

## 0.6J x 1CP

## 6J x 1CP

## 0.6J x 10CPs

