Electron beam parameters at IP

- Assumed the following incoming beam parameters at IP for 250 GeV beams:

  $\gamma\varepsilon_x$ / $\gamma\varepsilon_y$ = 10e-6 / 3e-8 m,
  σ_x / σ_y / σ_z = 553 nm / 5 nm / 300 μm,
  σ_{xp} / σ_{yp} = 36.9 / 12.4 μrad,
  σ_E / E = 0.1%,
  β_x / β_y = 15 / 0.4 mm,
  N = 2e10 particles per bunch.

- Disrupted beam distribution at IP was simulated by the Guinea-Pig code. The rms values for disrupted beam were estimated from the simulated distribution of 3.5e4 particles:

  $\gamma\varepsilon_x$ / $\gamma\varepsilon_y$ = 32.7e-6 / 9.7e-8 m,
  σ_x / σ_y = 549 nm / 8.3 nm,
  σ_{xp} / σ_{yp} = 246 / 29 μrad,
  σ_E / E = 5.5%, $(\Delta E / E)_{ave}$ = -3.3%, $(\Delta E / E)_{max}$ = -55%,
  β_x / β_y = 4.5 / 0.345 mm, α_x / α_y = 1.76 / 0.663.