1. O.Napoly, D.Schulte .
   Beam beam effects at the TESLA Linear collider.

The general parameters of Beamstrahlung at beam-beam interaction of TSLA-project re considered.

2. E.Merker, , R.Brinkmann, O.Napoly, N.Walker, I.Yazynin.
   The TESLA high-power extraction line.

The TESLA beam line for 250 GeV, which satisfies the requirements to transport the extracted spent beam to the dump with low losses (not more as 0.1 %) concentrated on one collimator at the entrance of the channel, is described.

In the presentation now we shall discus the distribution of the Beamstrahlung power and of the particles of the spent beam on the main extraction elements at the presence of the beam-beam position and relative angle offsets for the beam energy of 250GeV and 400GeV.

For the calculation of Beamstrahlung energy distribution we use GUINEA-PIG simulation.

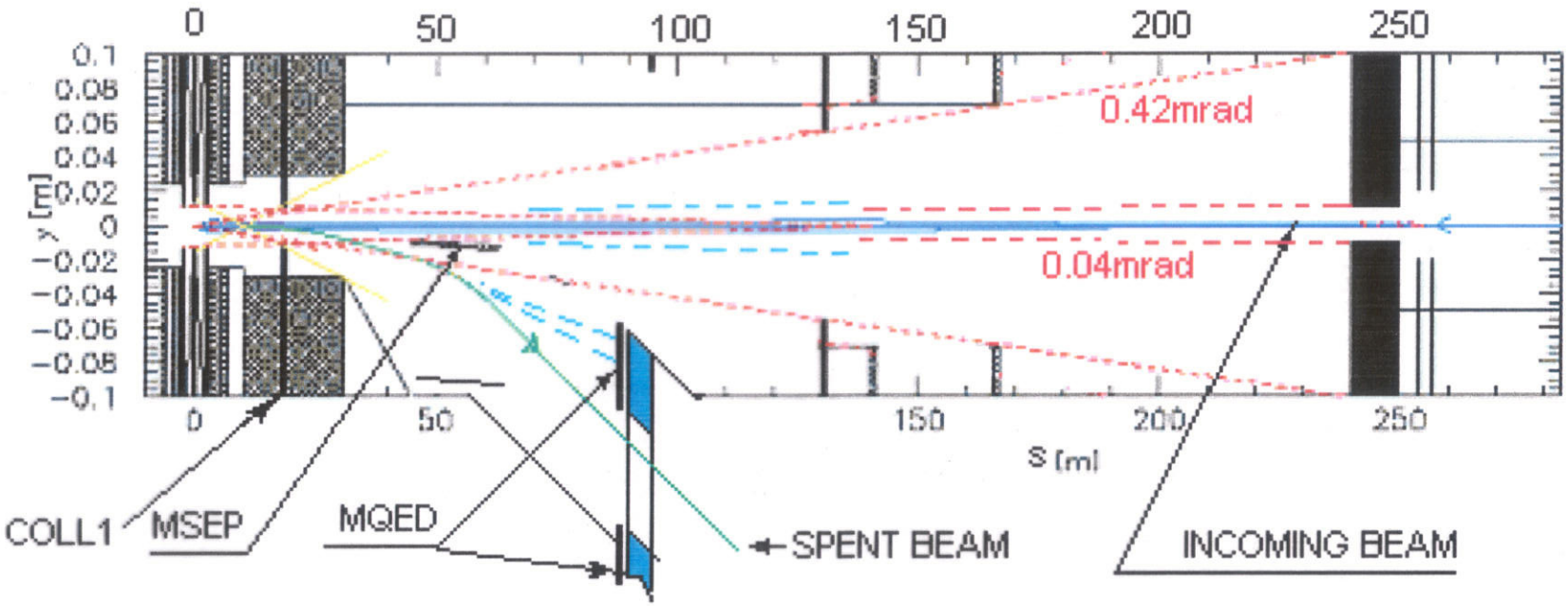

Fig.1. Extraction of the spent beam and beamstrahlung in vertical plane from IP.

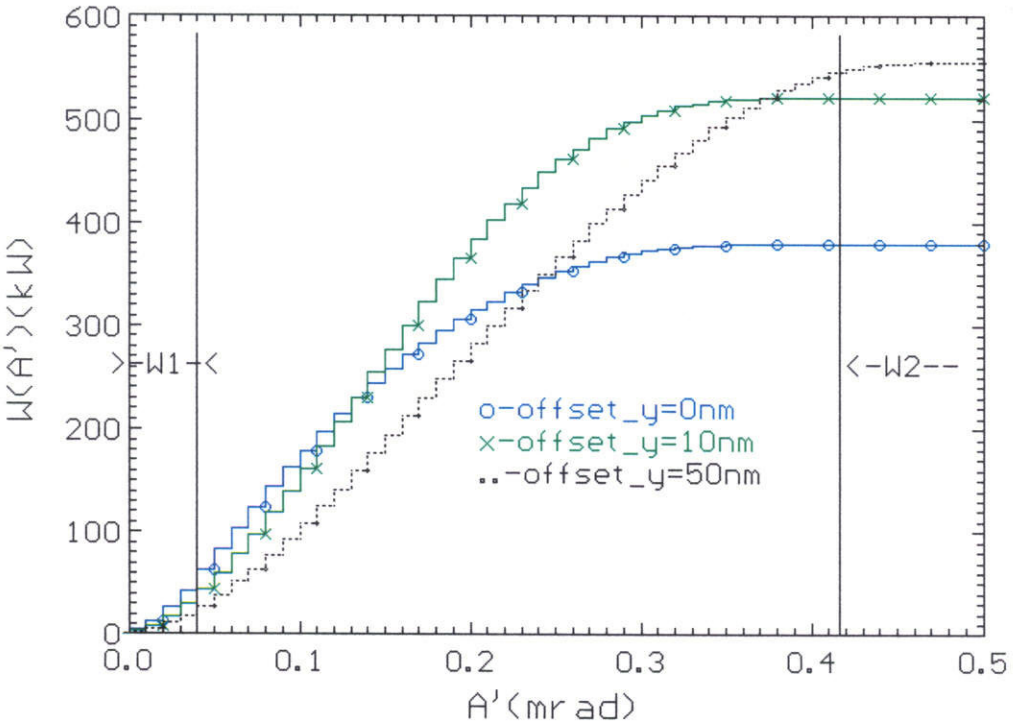

Fig.2. Angular integral beamstrahlung power distribution for different offsets (250 GeV).

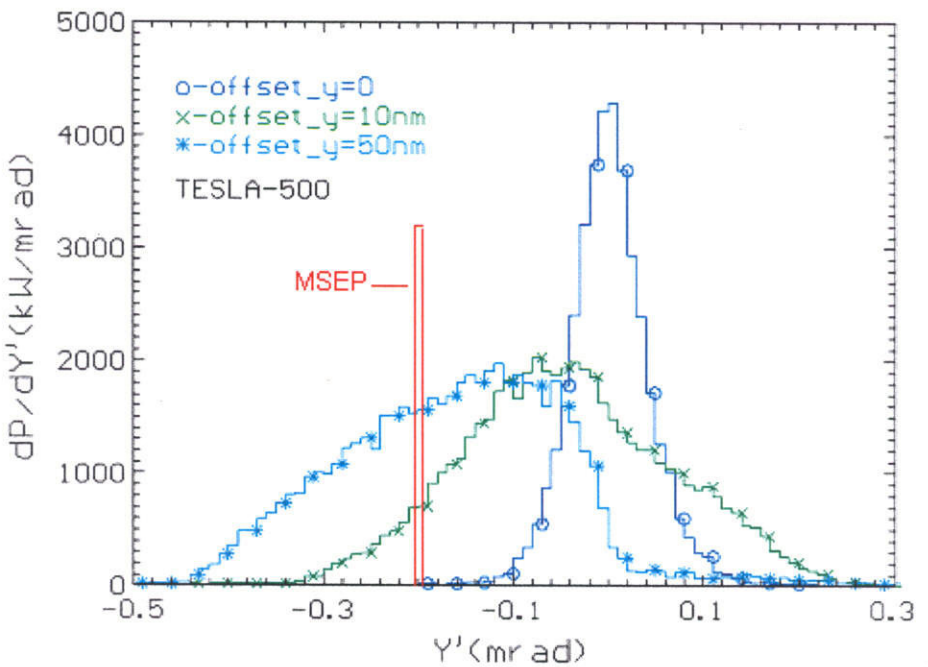

Fig.3. Angular beamstrahlung power density distribution for different offsets (250 GeV) .

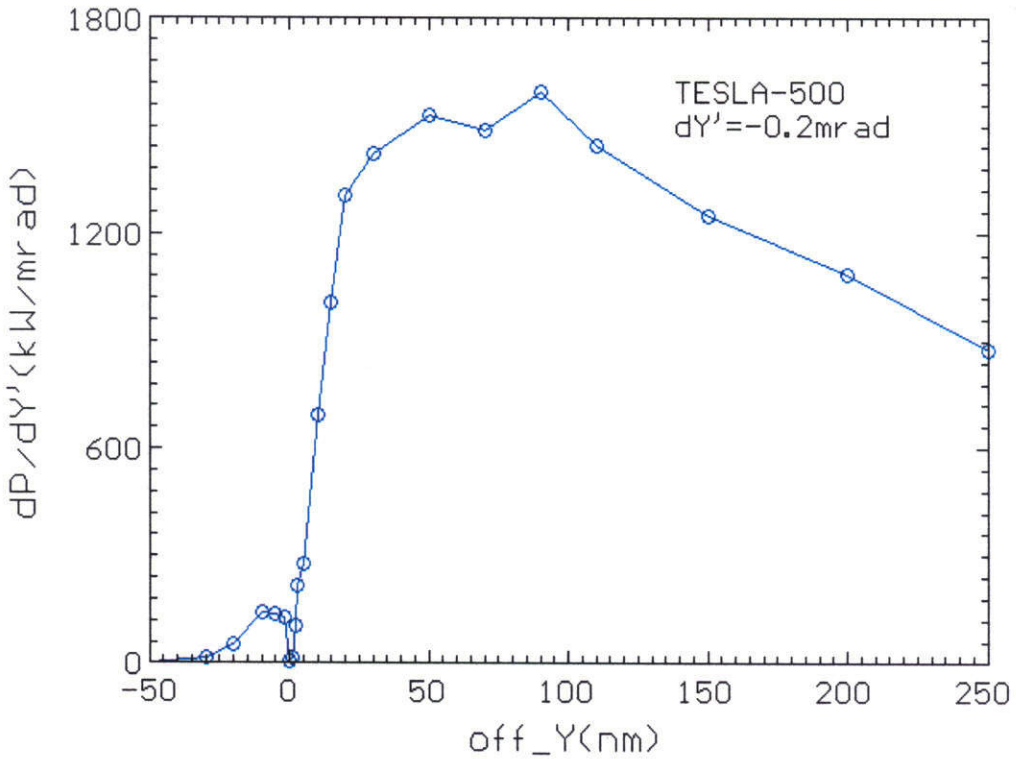

Fig.4. Beamstrahlung power density distribution on the septum-magnet versus vertical offset (250 GeV).

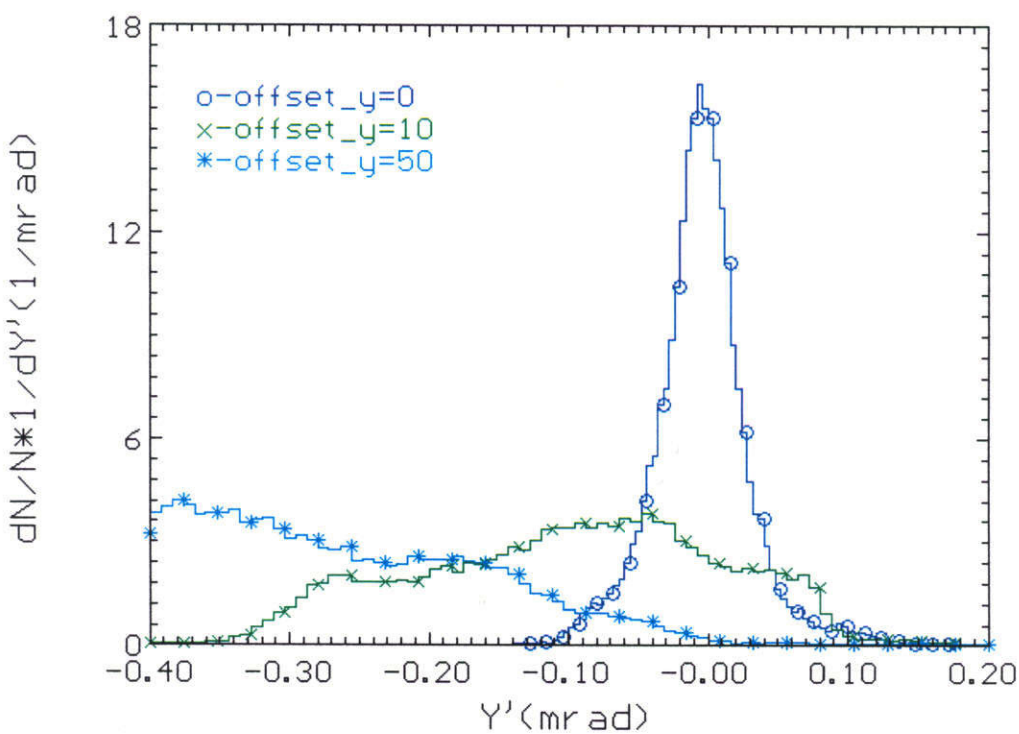

Fig.5. Angular spent beam density distribution for different offsets (250 GeV).

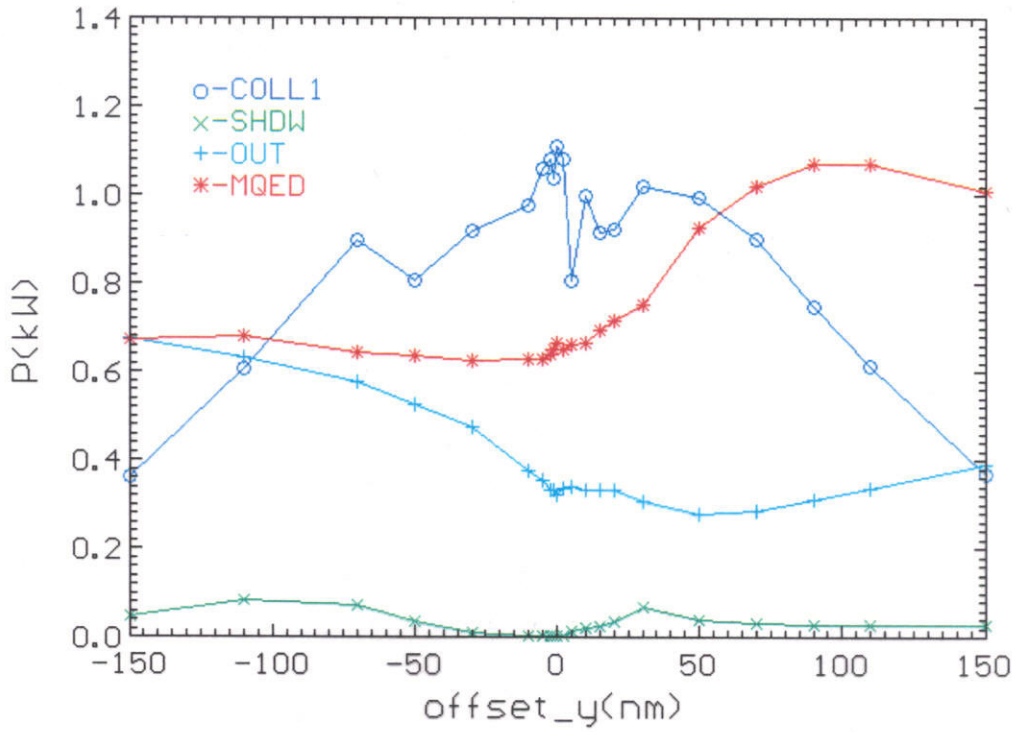

Fig.6. Synchrotron radiation power deposition on head extraction elements versus vertical offset (250 GeV).

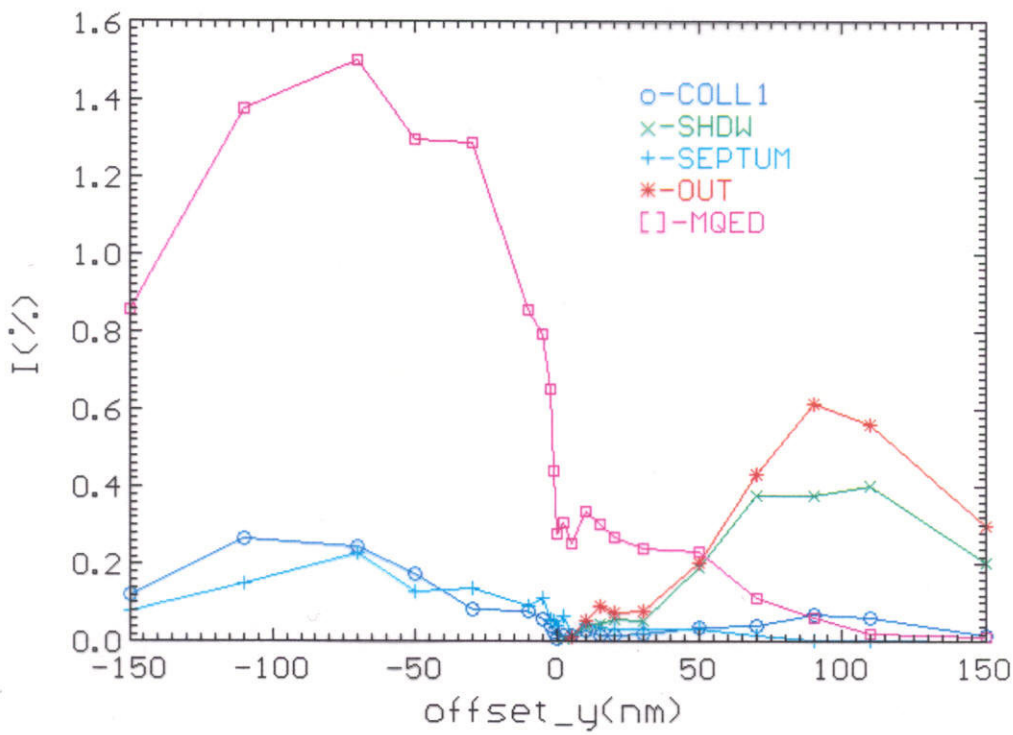

Fig.7. Spent beam losses on head extraction elements versus vertical offset (250 GeV).

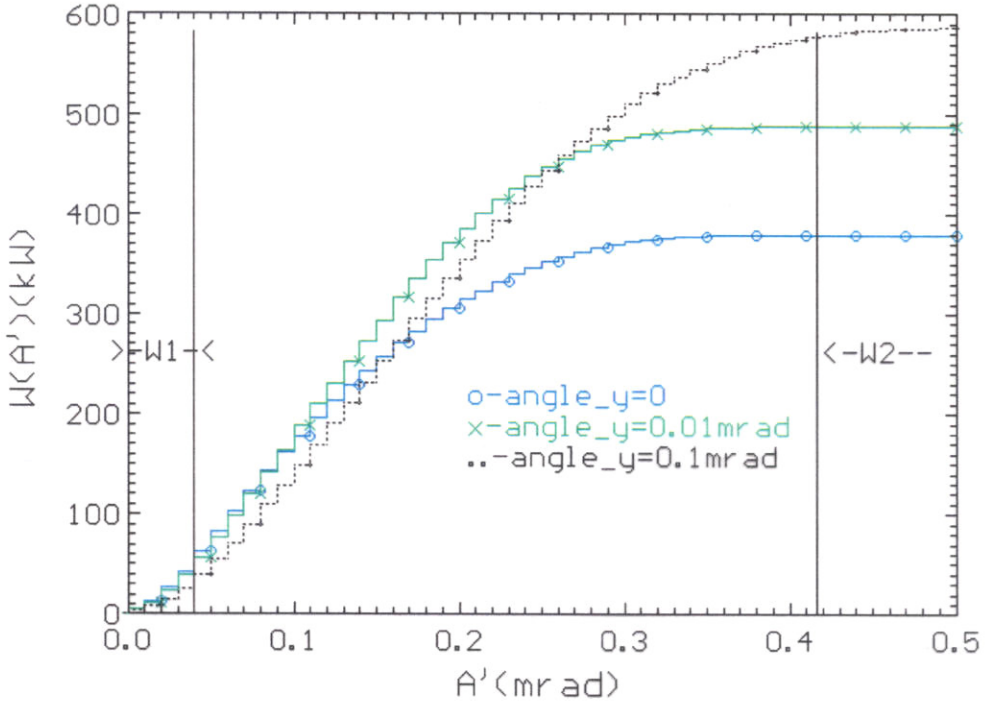

Fig.8. Angular integral beamstrahlung power distribution for different relative beam angles (250 GeV).

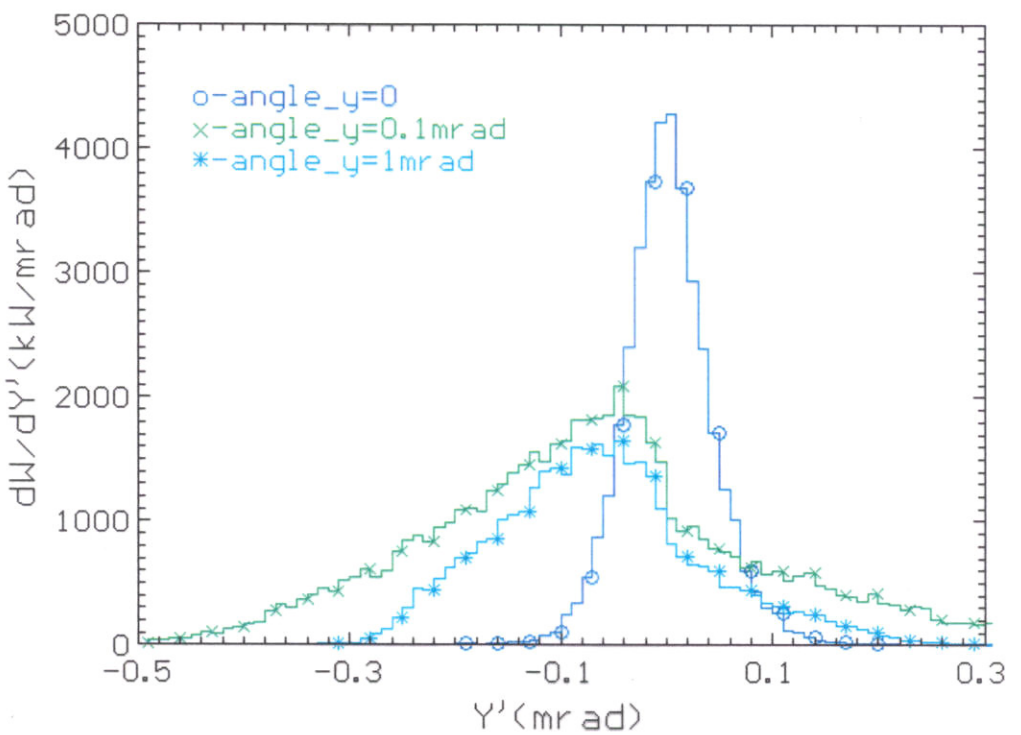

Fig.9. Angular beamstrahlung power density distribution for different relative beam angles (250 GeV).

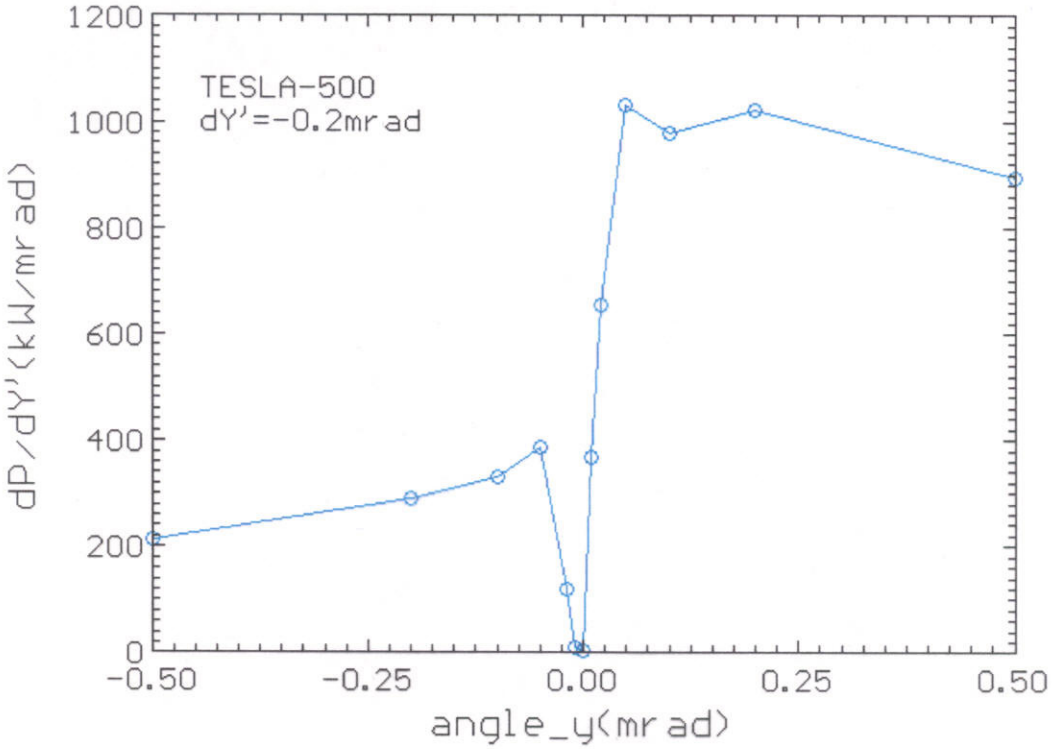

Fig.10.Beamstrahlung power density distribution on septum-magnet versus relative beam angle (250 GeV)

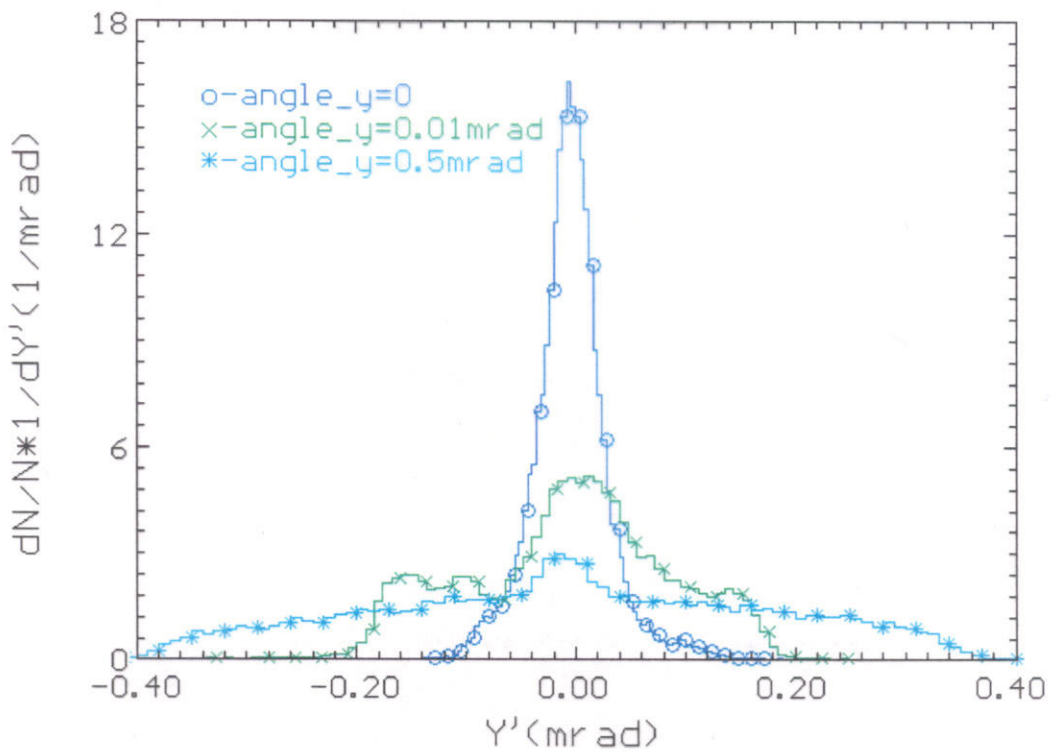

Fig.11 Angular spent beam density distribution for different relative beam angles (250 GeV).

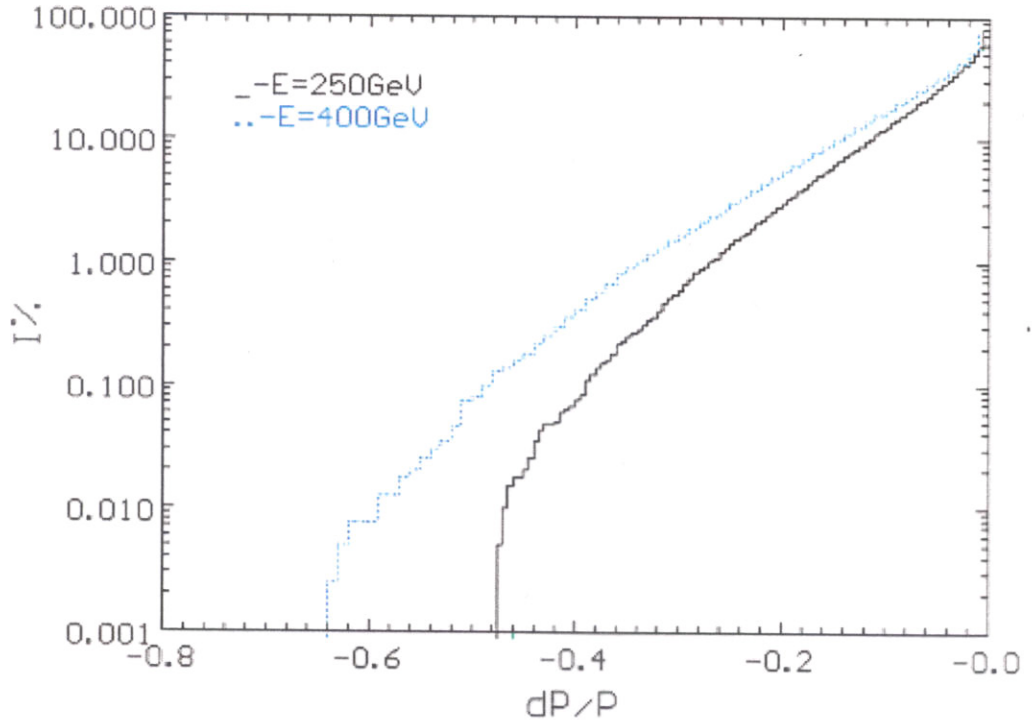

Fig12.Relative spend beam pulse distribution for 250 GeV and 400 GeV.

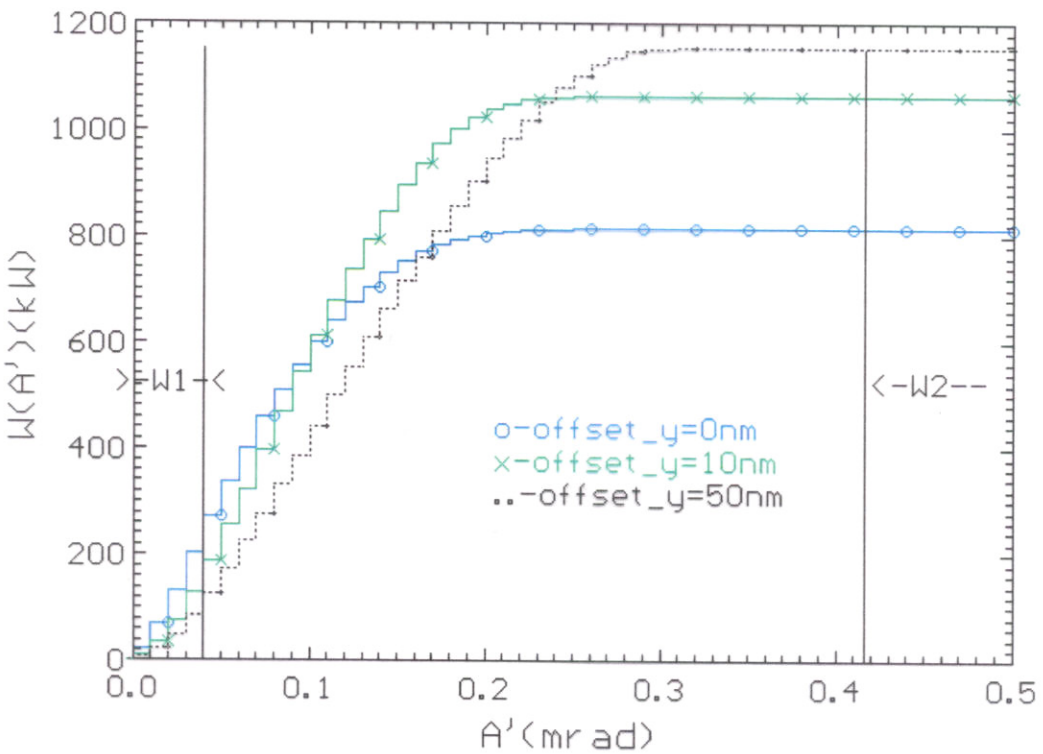

Fig. 13. Angular integral beamstrahlung power distribution for different offsets (400 GeV).

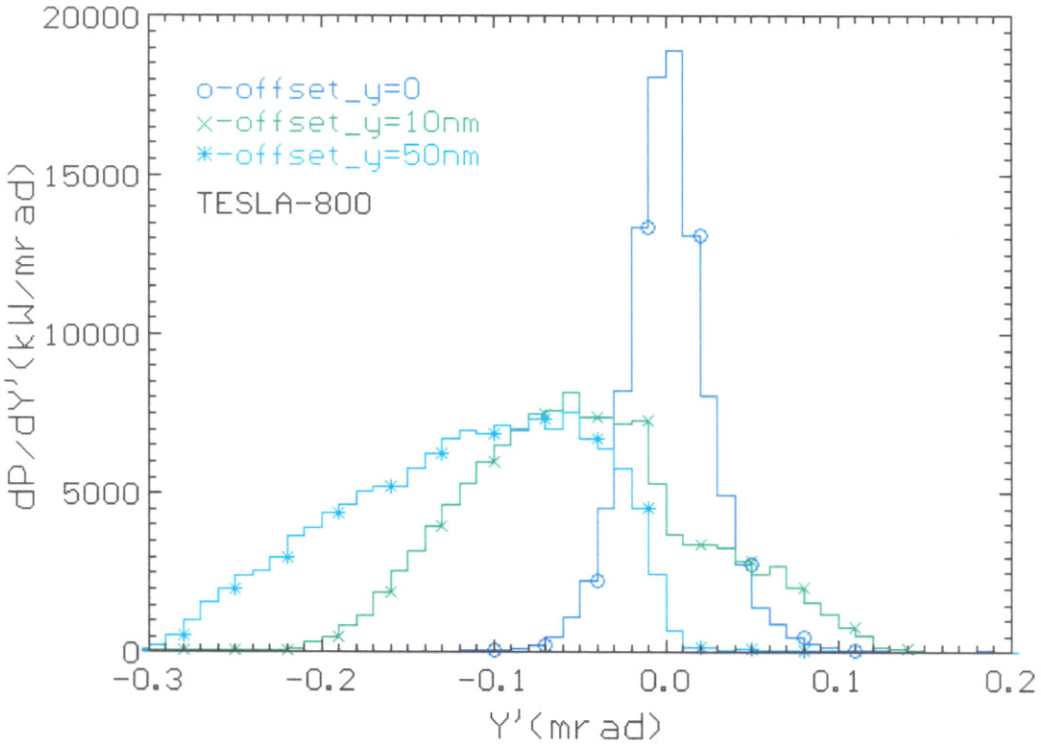

Fig.14. Angular beamstrahlung power density distribution for different offsets (400 GeV).

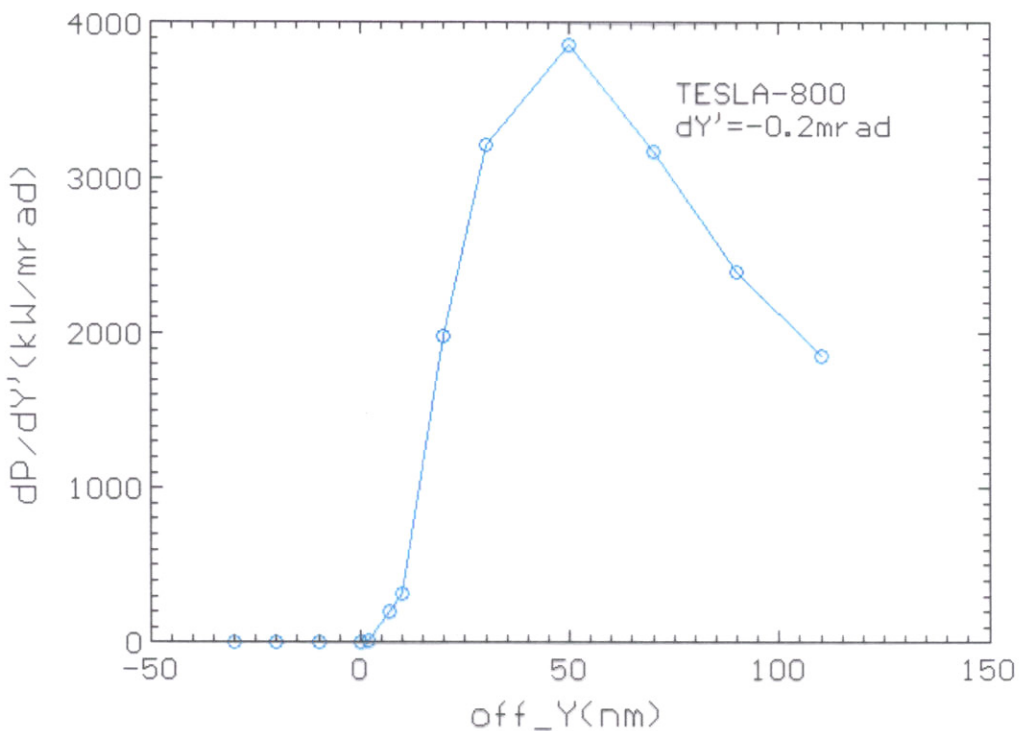

Fig.15. Beamstrahlung photon power density distribution on septum-magnet versus vertical offset (400 GeV)

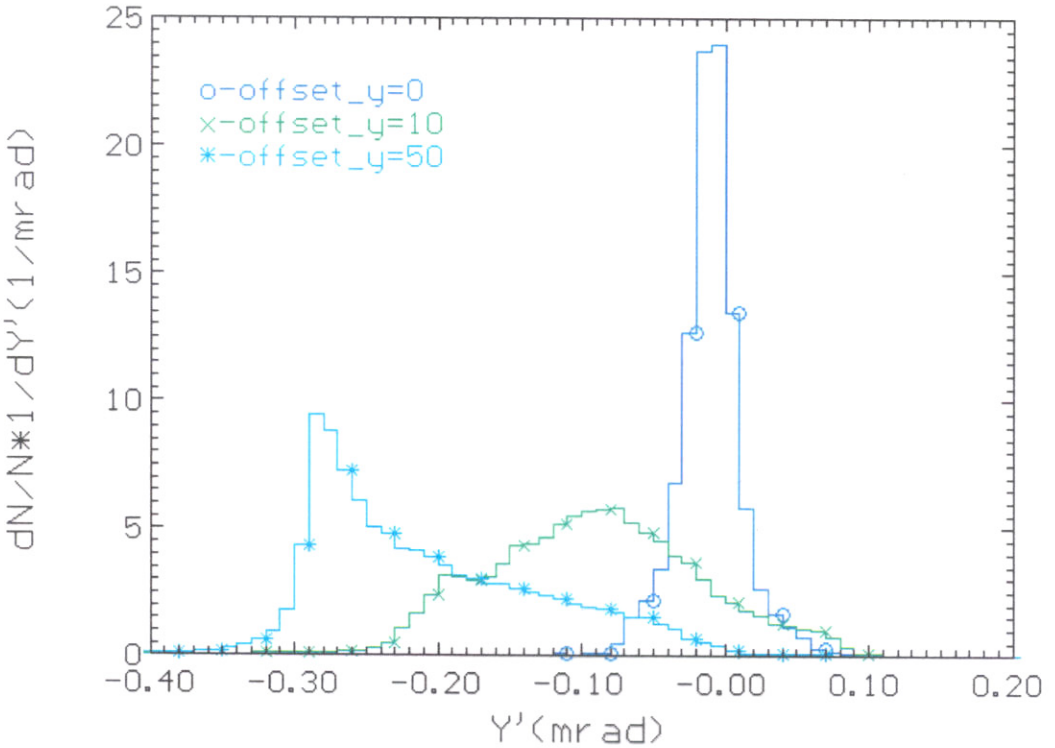

Fig.16. Angular spent beam density distribution for different offsets (400 GeV).

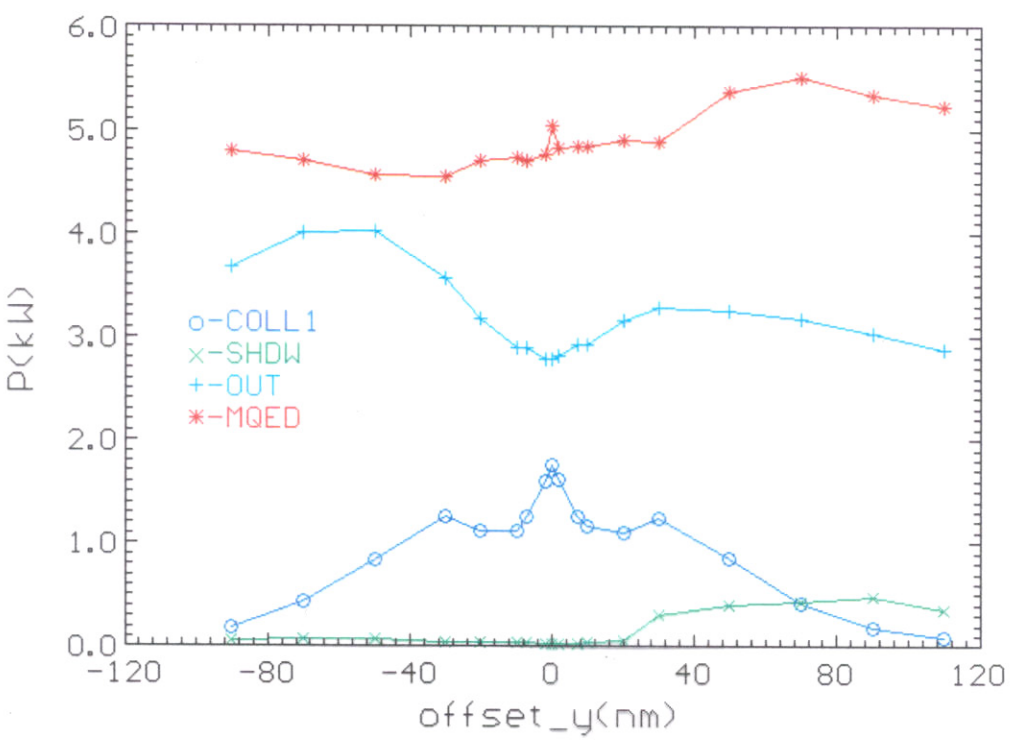

Fig.17. Synchrotron radiation power deposition on head extraction elements versus vertical offset (400 GeV).

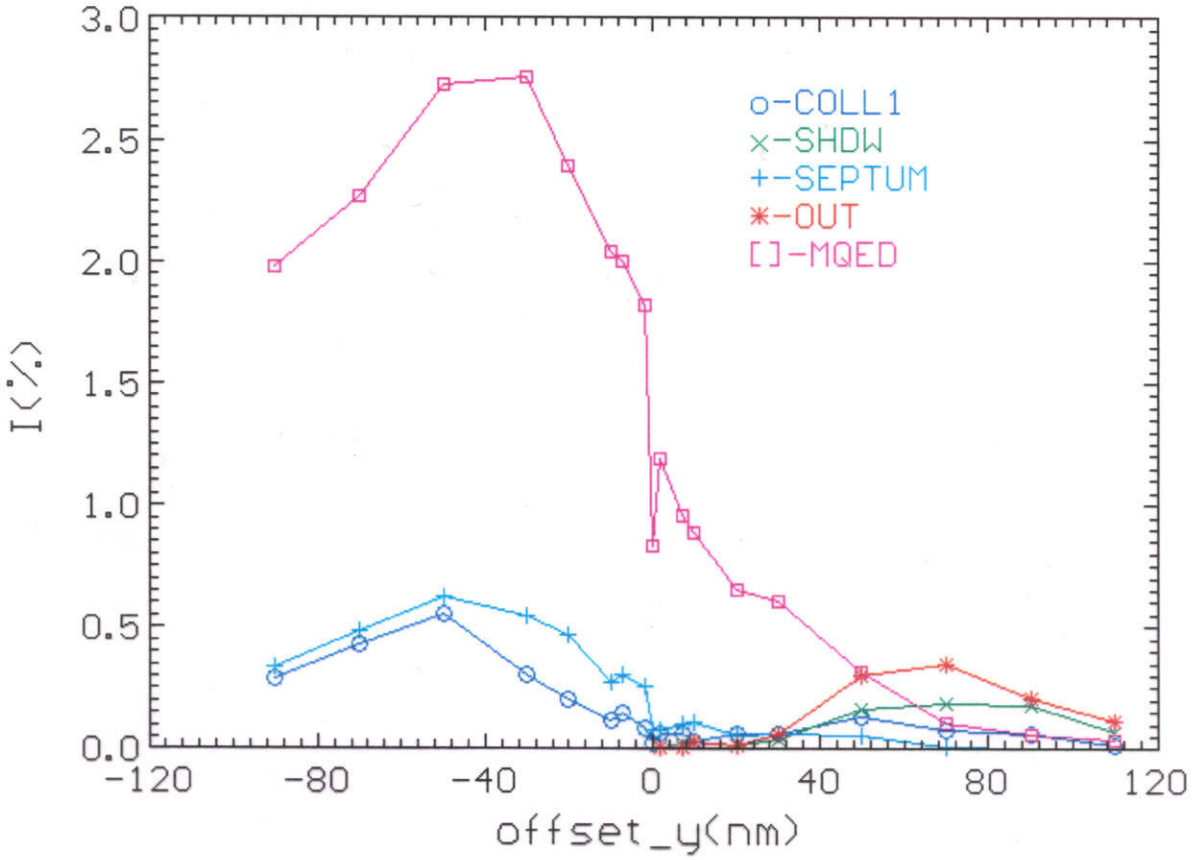

Fig.18. Spent beam losses on head extraction elements versus vertical offset (400 GeV).