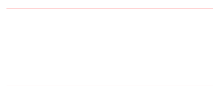


On new $\mu E4$ (last version ?) beam spot

F Foroughi

PSI Jun 2002



New $\mu E4$ beam line up to LEMU (rotated last triplet)

Transmission : 79.21 %

muons

$P_0 = 28.00$ MeV/c

$dP = 0.84$ MeV/c

$R_0 = 0.00$ cm

Focus at : 1903.00 cm

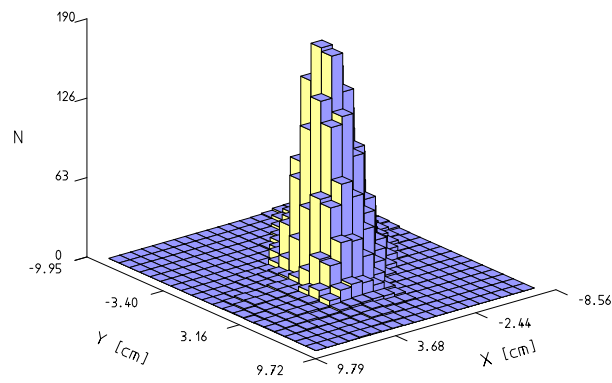
$X = 3.00$ cm

$Y = 0.15$ cm

$X' = 250.00$ mrd

$Y' = 250.00$ mrd

4678 Rays



1 Temporarily best optic

This solution has been found, using first attempt for a small separator and is temporarily.

The starting phase space (with 10000 particles) was :

- $x = \pm 3.0$ cm
- $y = \pm 0.3$ cm
- $x' = \pm 250$ mrad
- $y' = \pm 250$ mrad
- $\delta p = \pm 3$ %

The corresponding transmission is about 47 %.

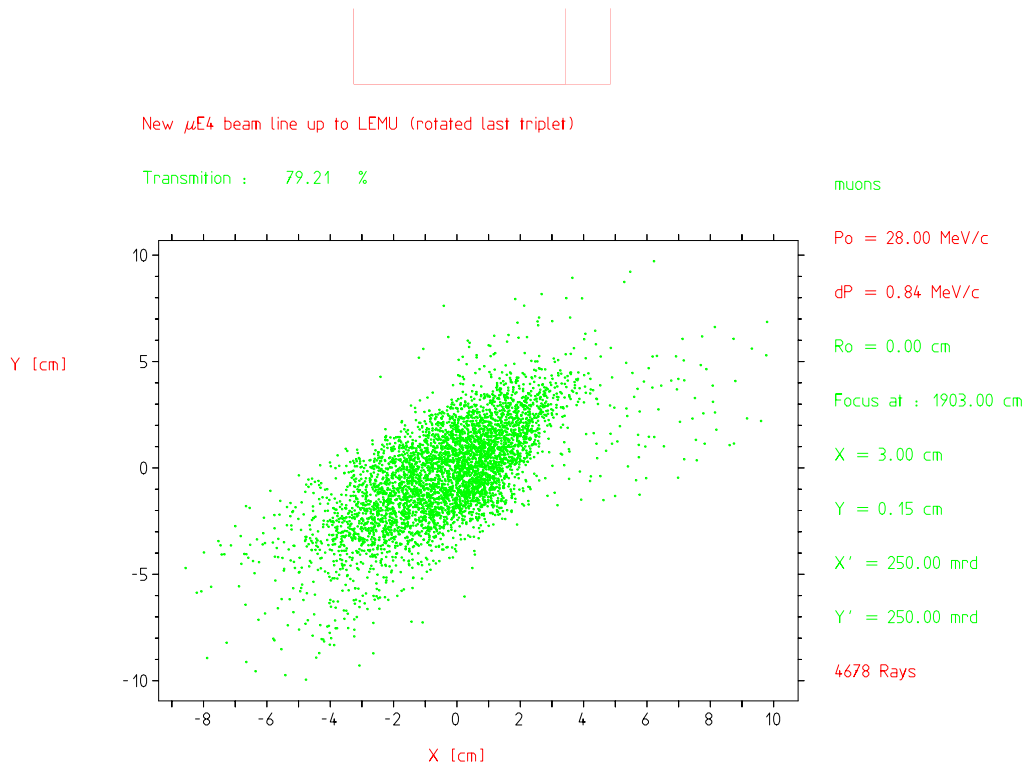


Figure 1: Beam spot at LEMU position

New $\mu E4$ beam line up to LEMU (rotated last triplet)

Transmission : 79.21 %

muons

$P_0 = 28.00$ MeV/c

$dP = 0.84$ MeV/c

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Focus at : 1903.00 cm

$X = 3.00$ cm

$Y = 0.15$ cm

$X' = 250.00$ mrd

$Y' = 250.00$ mrd

4678 Rays

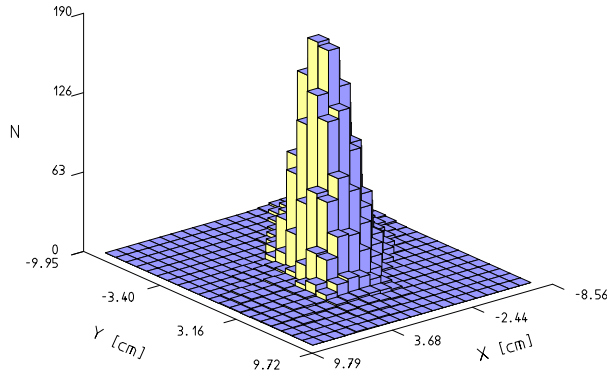
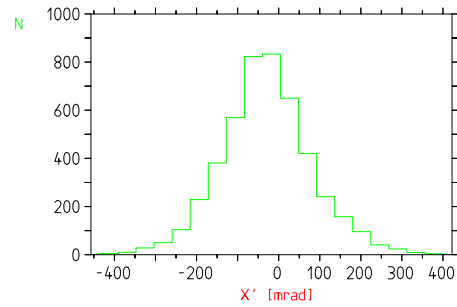
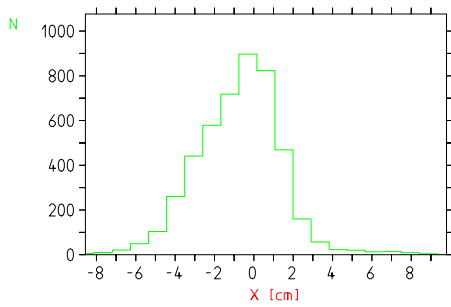
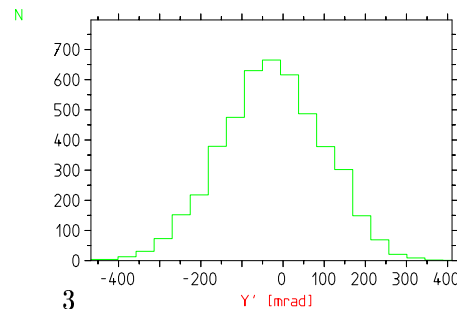
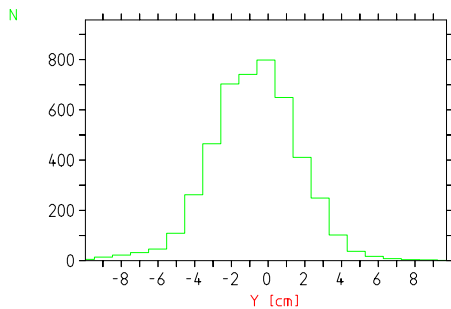


Figure 2: Beam spot at LEMU position

New $\mu E4$ beam line up to LEMU (rotated last triplet)



muons



There are 4678 rays

Figure 3: Phase space at LEMU position