Awake Run2 injector layout

Injector 160 MeV (10m x 1m)

Beam transport (10 m x 4 m)

Proton/Electron beam axis distance 3 m

Merging dipole

Proton line
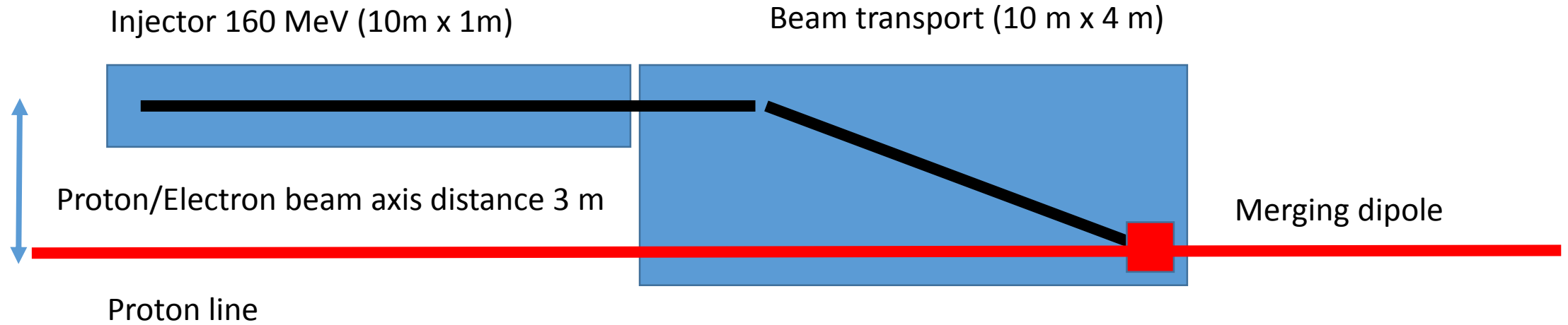
The schema can be rotated around the proton beam.
The intra-beam distance can be negotiated.
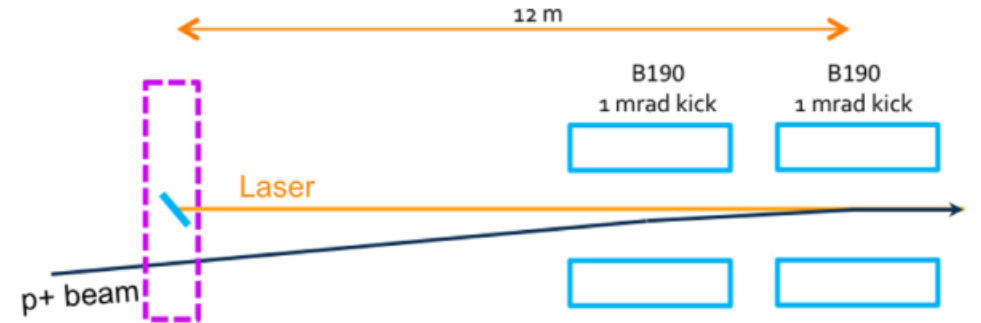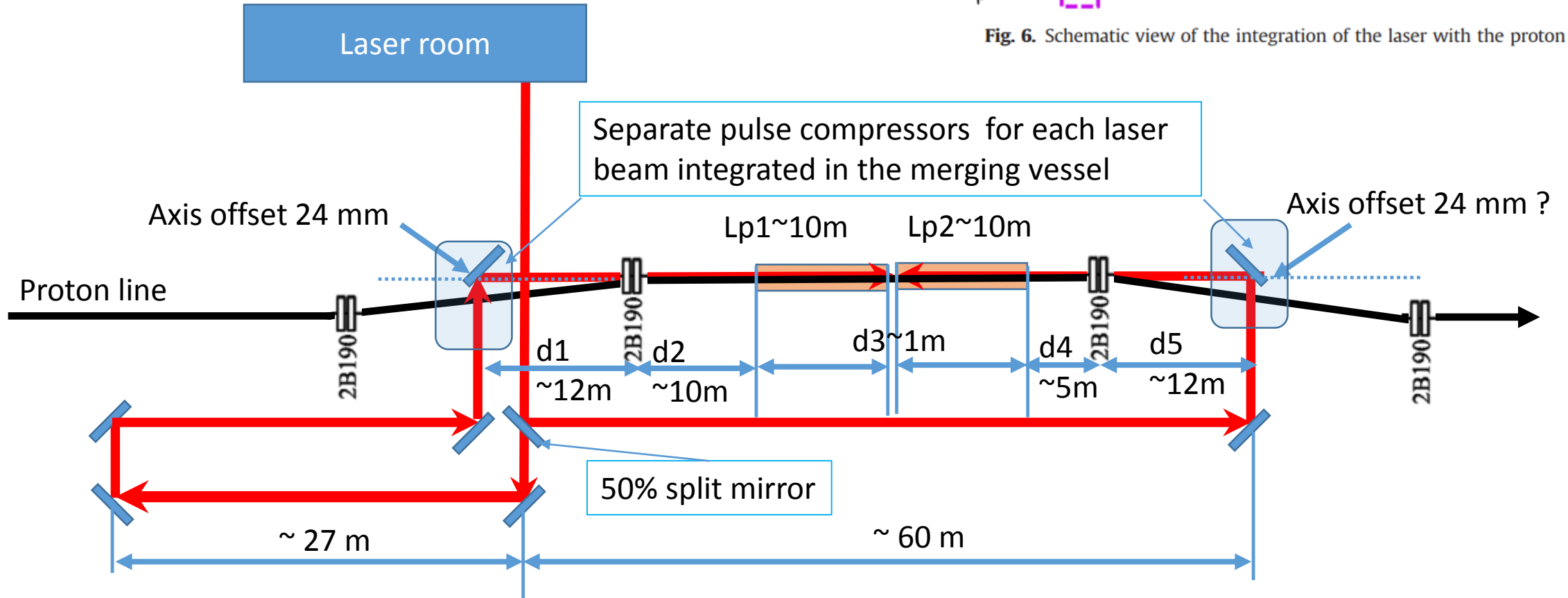Beam transport is only a rough estimate for time being

Laser lines

12 m

B190
1 mrad kick

B190
1 mrad kick

Laser

p+ beam

Fig. 6. Schematic view of the integration of the laser with the proton beam.

Laser room

Separate pulse compressors for each laser beam integrated in the merging vessel

Axis offset 24 mm

Lp1~10m

Lp2~10m

Axis offset 24 mm ?

Proton line

2B190

2B190

d1 ~12m

d2 ~10m

d3~1m

d4 ~5m

2B190

d5 ~12m

2B190

50% split mirror

~ 27 m

~ 60 m

Delay D ≥ (Lp2+d4+d5) x 2 ~ 54 m

Laser beam paths from the split mirror to plasma separation window
~ 97 m + path inside the pulse compressor
=> relay imaging using conventional optics possible for long pulses