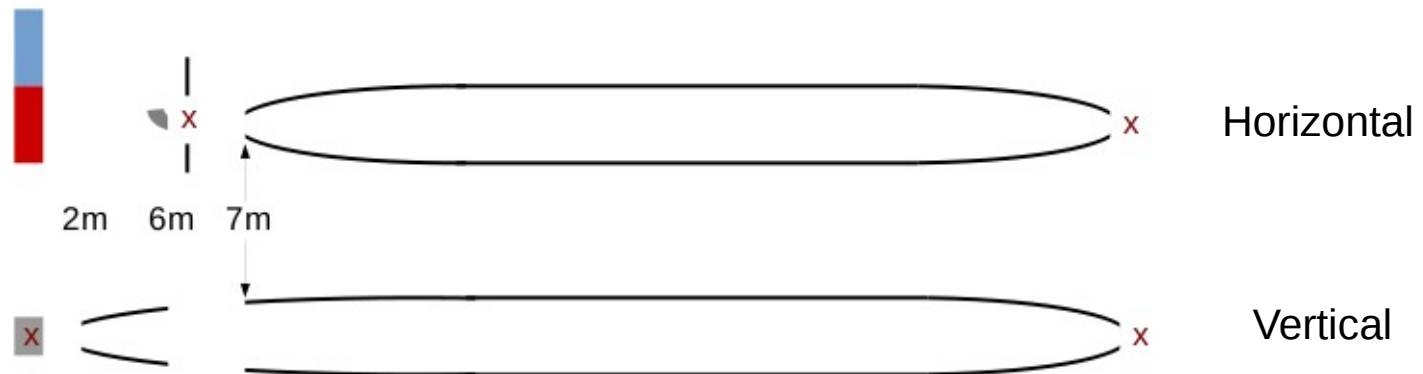


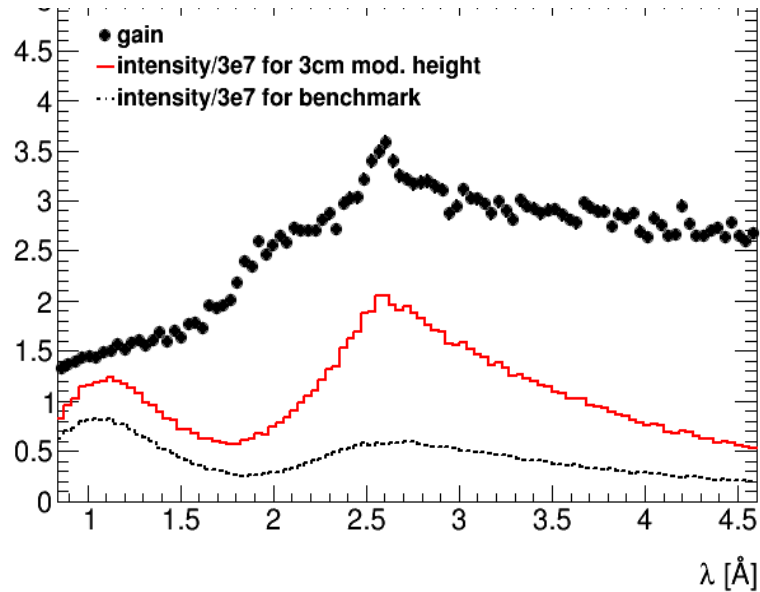
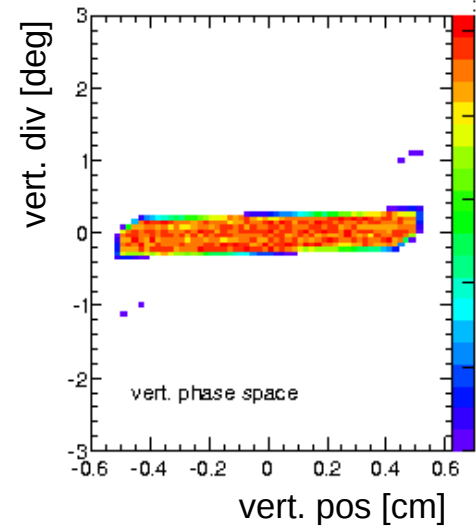
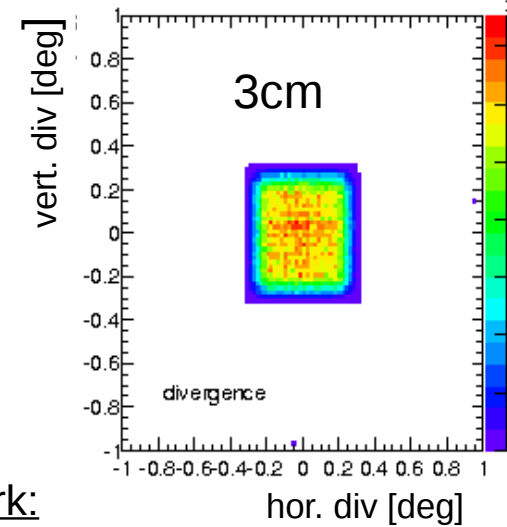
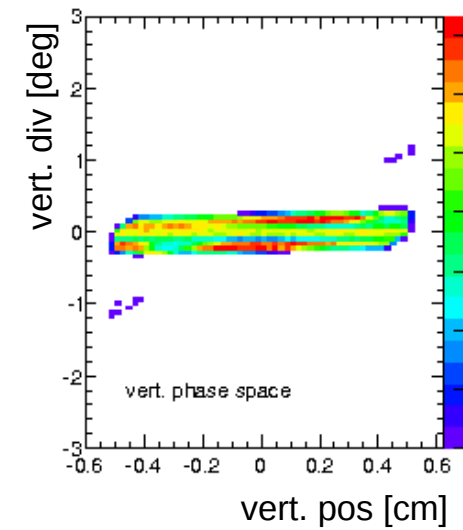
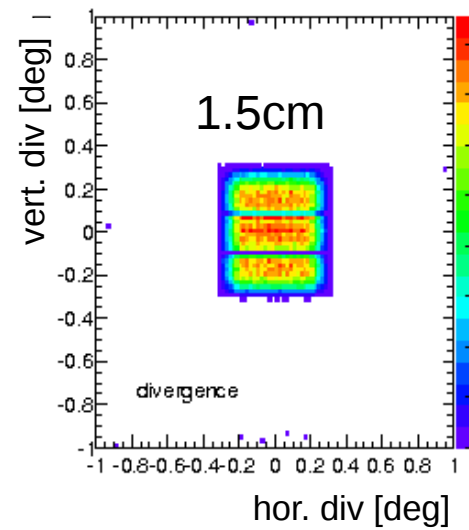
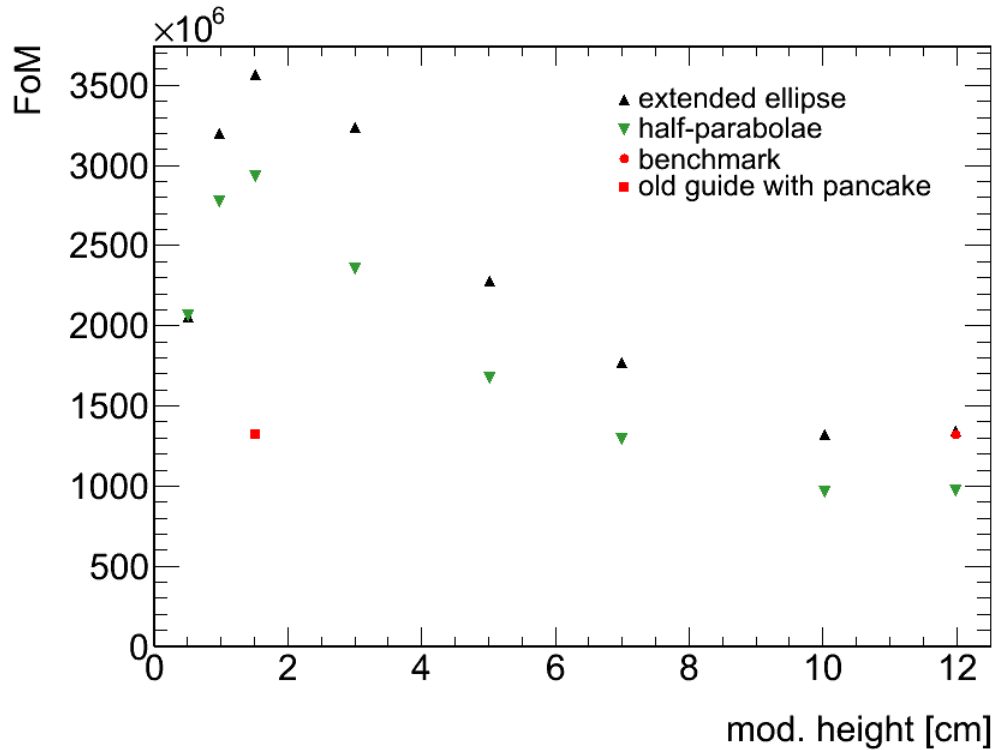
PowHow performance with different moderator heights



- 1) extend ellipse to start at 2m, focal point in source, hole for chopper between 6m and 7m --> guide entry height at 2m: 2.4 cm
 - 2) alternative: two half-parabolas, first focal point in source --> direct line of sight blocked
-
- Simulation without choppers (only holes)
 - Figure of merit (FoM): intensity in $1 \times 1 \text{ cm}^2$, $\pm 0.25^\circ$, 0.8-4.6 Å
 - Benchmark: former symmetric guide with old moderator $12 \times 12 \text{ cm}^2$

Results:

- FoM is largest for 1.5cm moderator height
- Phase space looks much better for 3cm (second highest FoM)



Gain in FoM
w.r.t. Benchmark:
2.7 for 1.5 cm mod.
2.5 for 3.0 cm mod.