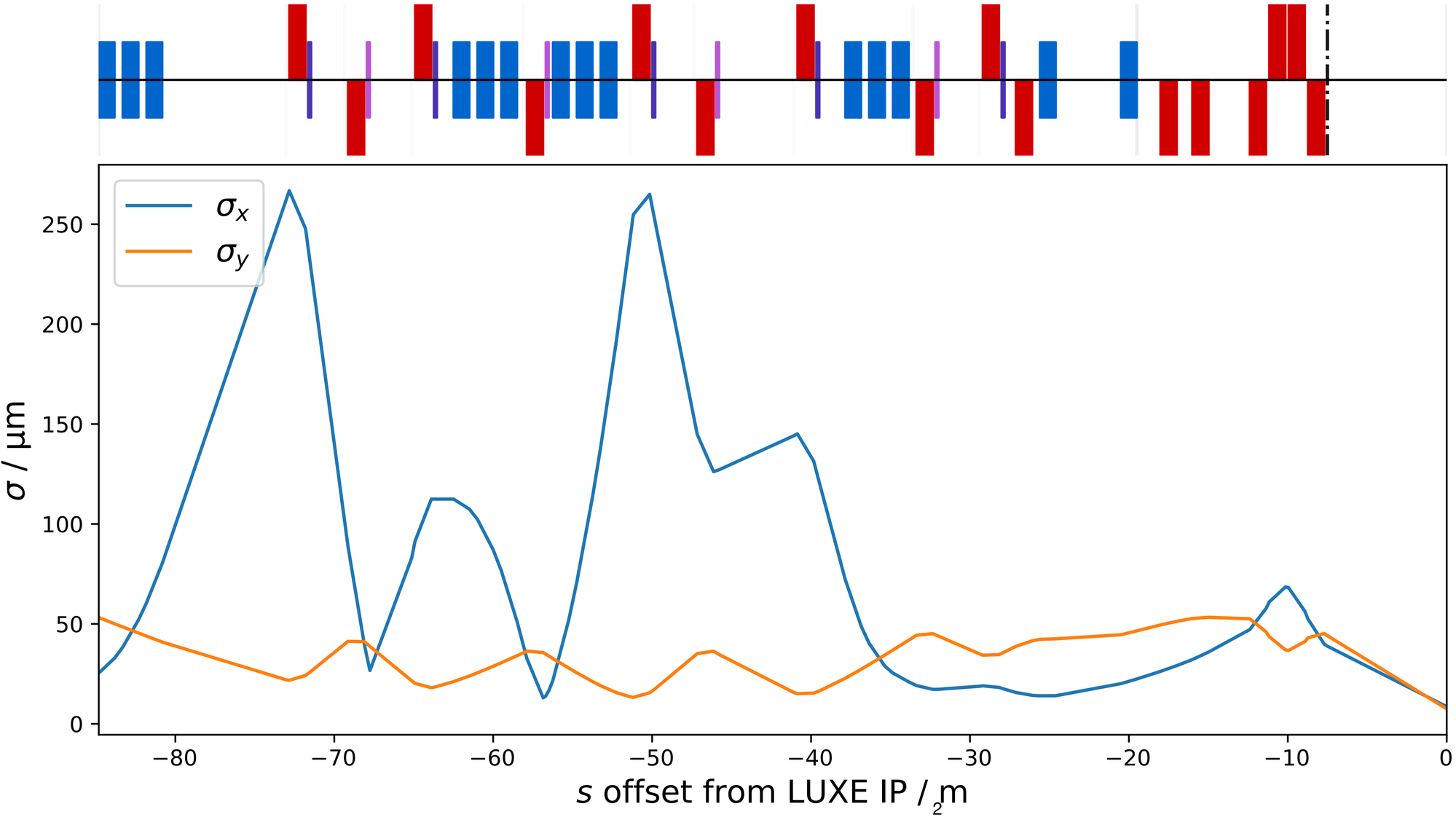
Overview

- 2 pairs of accelerator optics plots up to the IP and target.
  - First pair is the previously shown design
  - Latter pair is the more recent design.

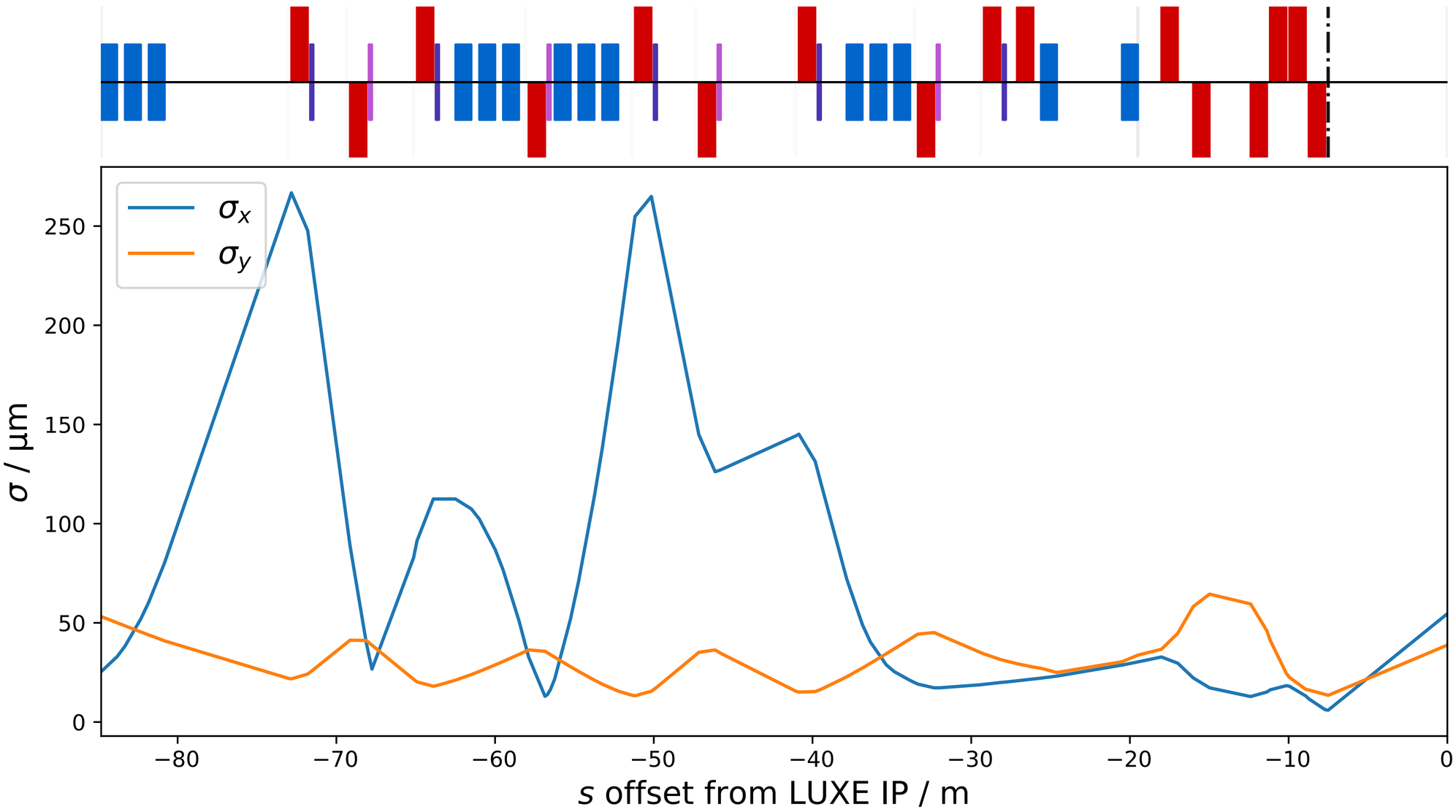
T20 with Final Focus transverse beam sizes to IP



BEFORE

Beamsize 1sigma at IP, nominal emittance (1.4mm•mrad)
x = 8.5µm
y = 7.5µm

T20 with Final Focus transverse beam sizes to TARGET

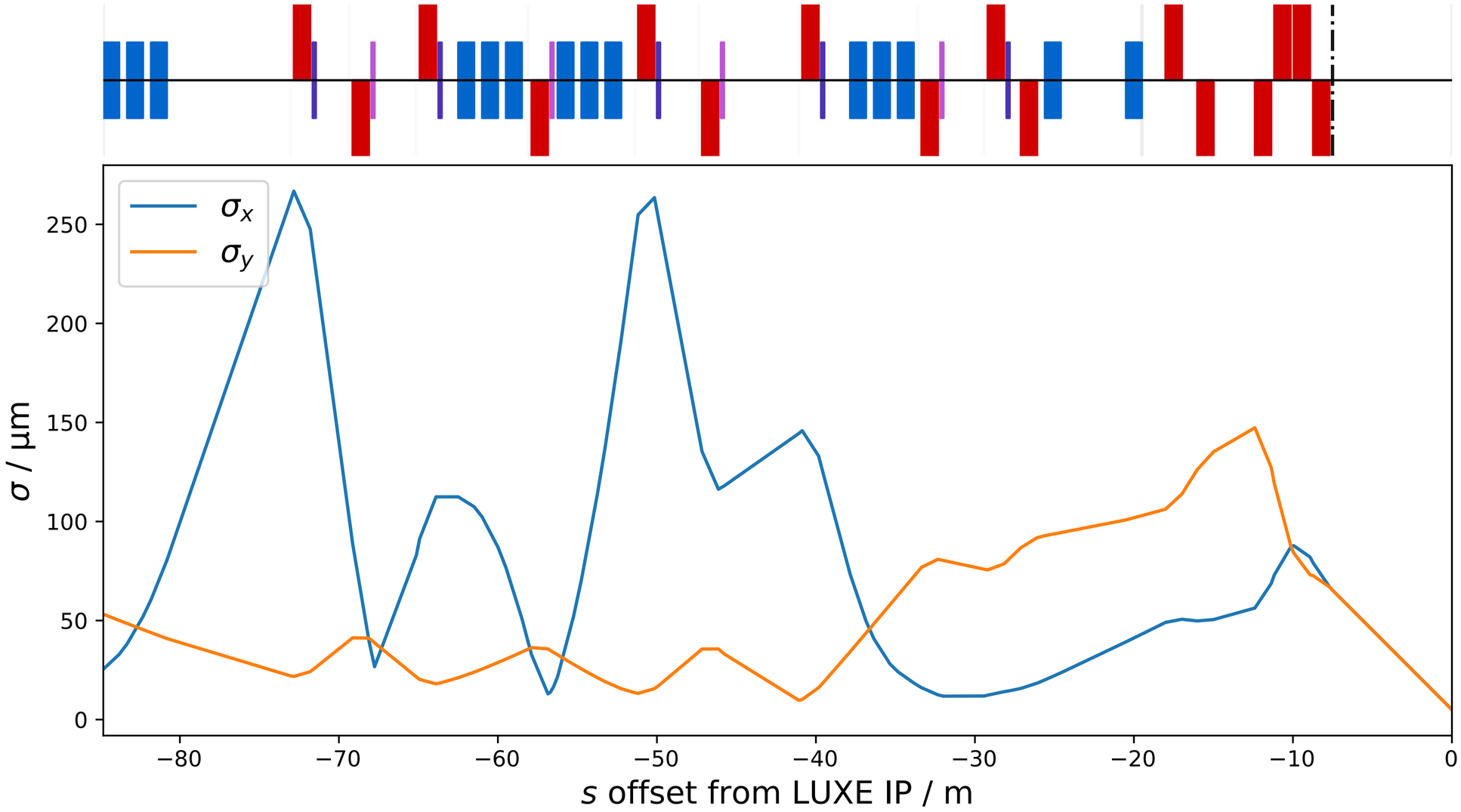


BEFORE

Beamsize 1sigma at target, nominal emittance (1.4mm•mrad)

x = 6.0µm
y = 13.4µm

T20 with Final Focus transverse beam sizes to IP

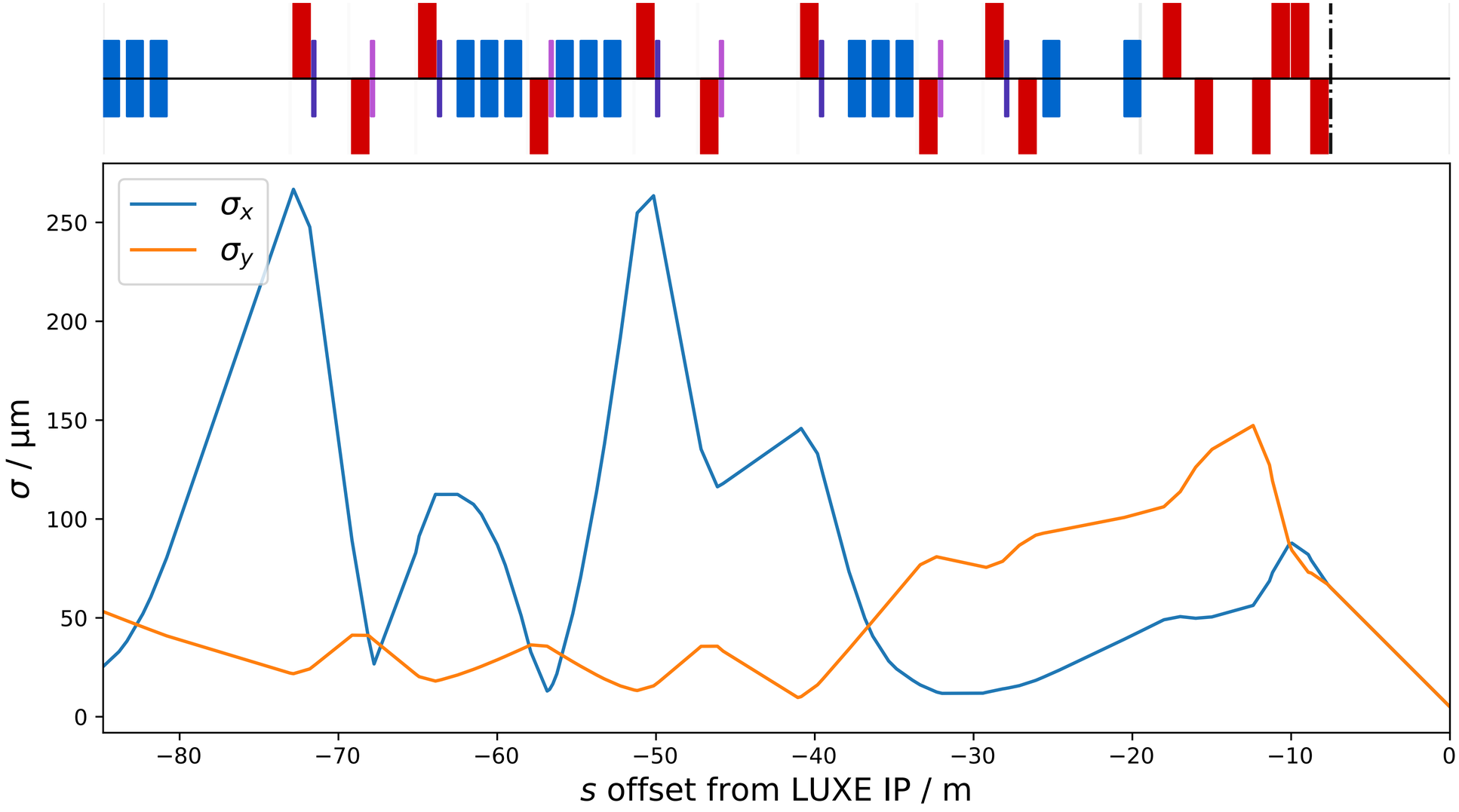


NOW

Beamsize 1sigma at IP, nominal emittance (1.4mm•mrad)

x = y = 5µm

T20 with Final Focus transverse beam sizes to TARGET



NOW

Beamsize 1sigma at IP, nominal emittance (1.4mm•mrad)

x = 5.0µm
y = 5.4µm

imperfect vertical due to slight unclosed dispersion

Summary / Outstanding Questions

- How close one can get the last quadrupole to the target (currently: 0.2m)
- How this stronger focus to the IP is tolerant to energy errors and magnet misalignments.
- Emittance preservation through the arc.