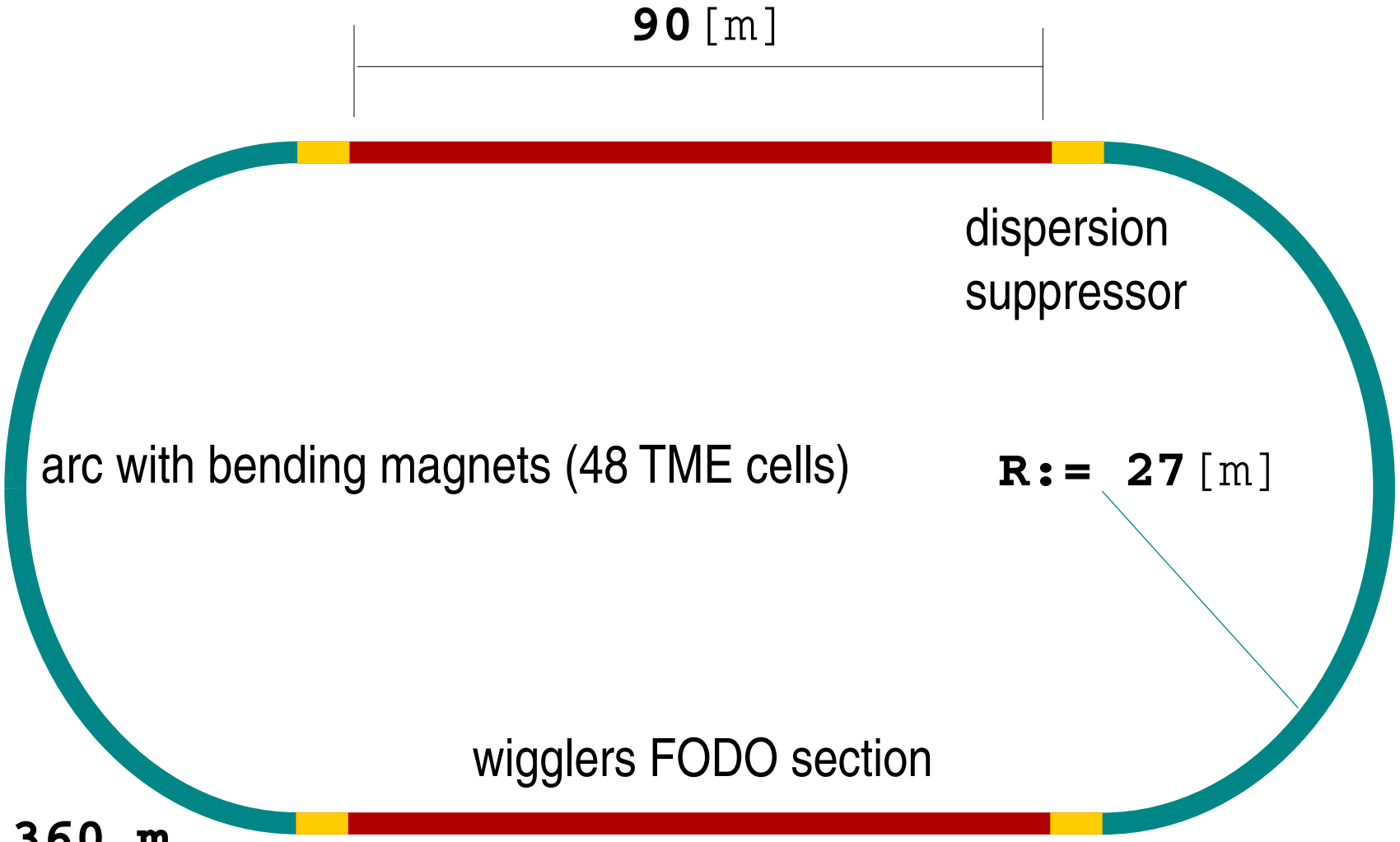
layout of the CLIC positron damping ring



C:= 360 m

E:= 2.424 GeV

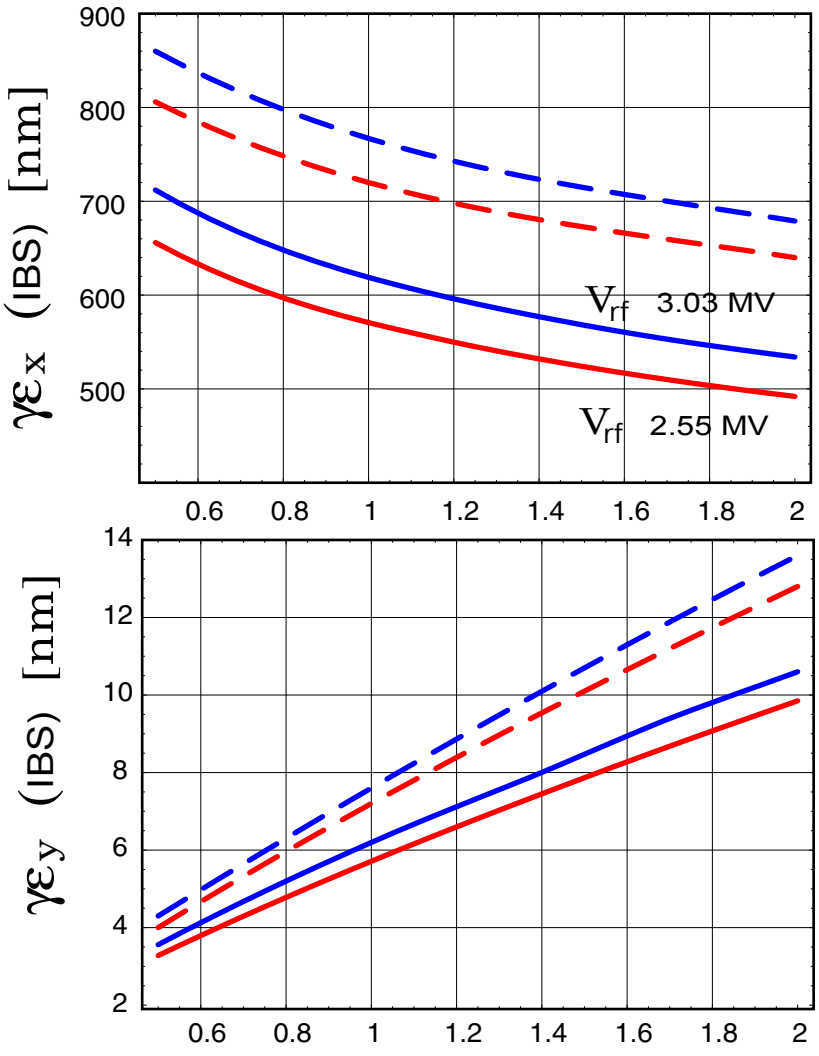
76 wigglers in the ring
length of each wiggler is 2m

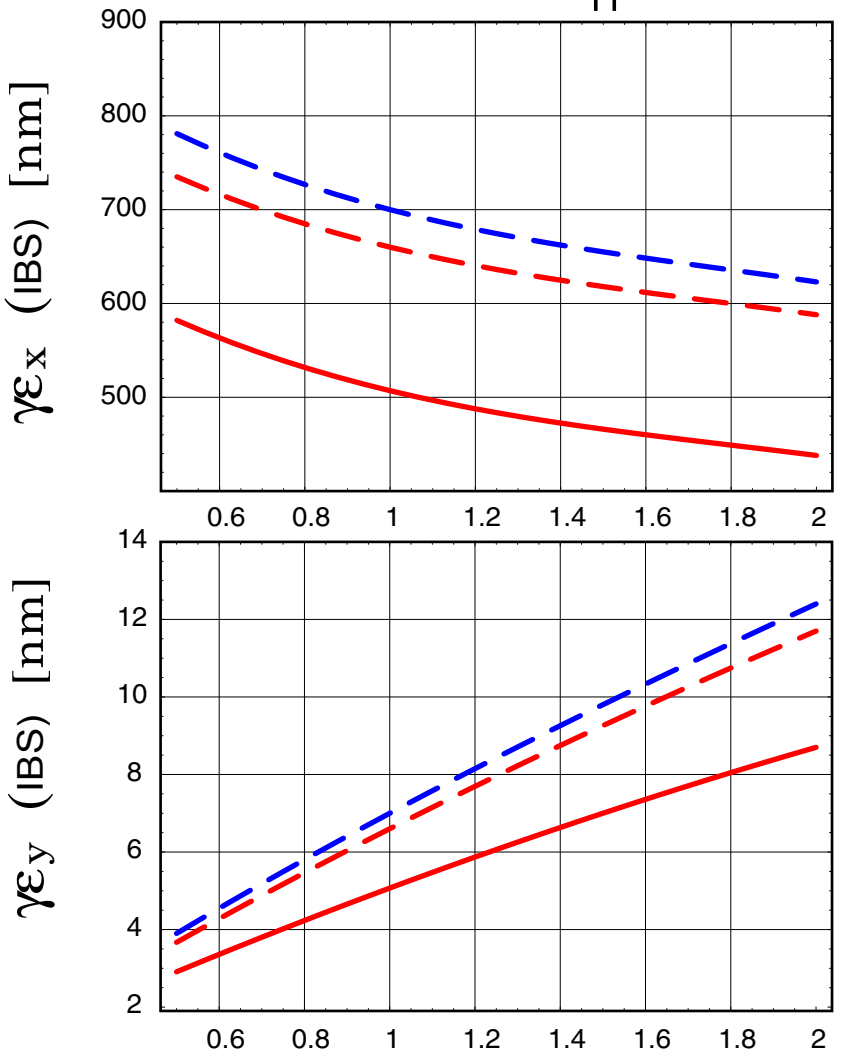
Transverse normalized emittances in CLIC_DR with wiggler period of 10 and 20 cm (dash line).
Energy is 2.424 GeV, wiggler field 1.78 T

V_{rf} 2.55 MV

V_{rf} 3.03 MV

4.2×10^9 < bunch population > 3.0×10^9



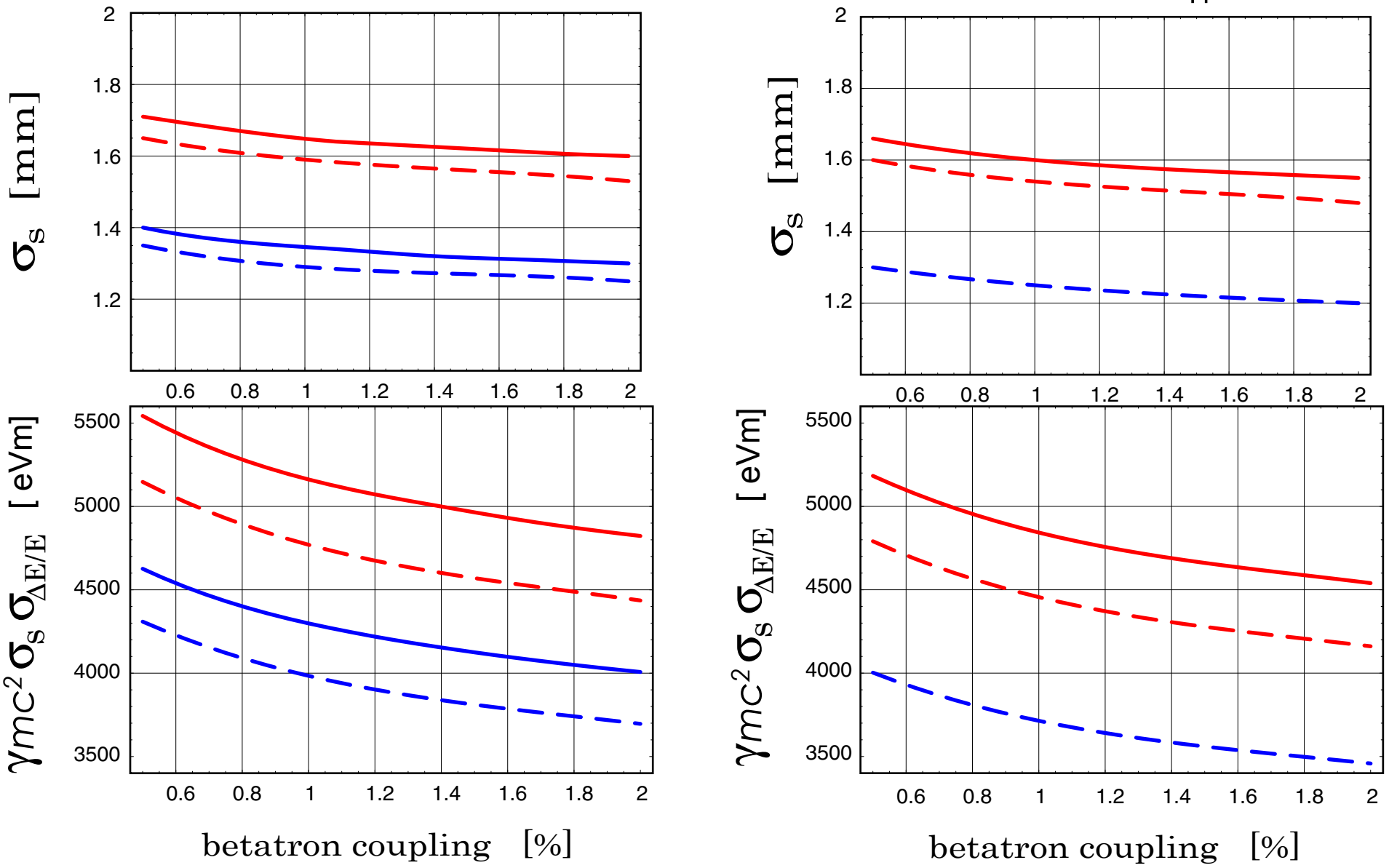


Longitudinal lormalized emittance and rms bunch length in CLIC_DR with wiggler period of 10 and 20 cm (dash line). Energy is 2.424 GeV wiggler field 1.78 T

V_{rf} 2.55 MV

V_{rf} 3.03 MV

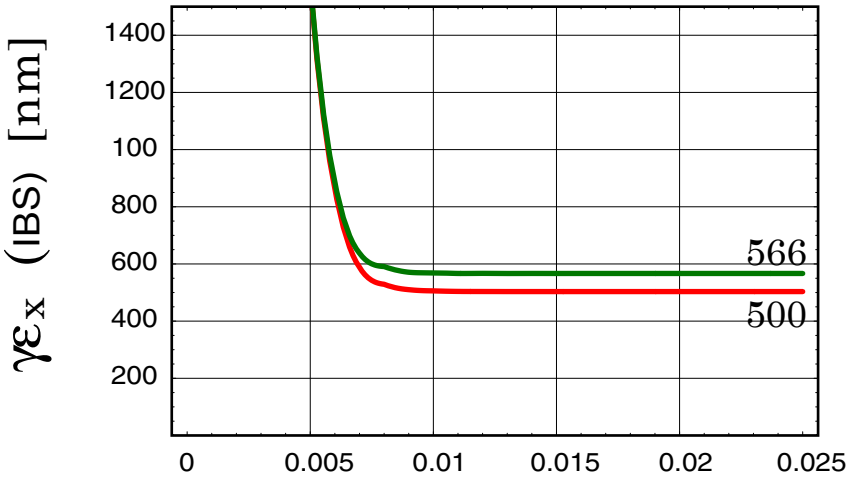
4.2×10^9 < bunch population > 3.0×10^9

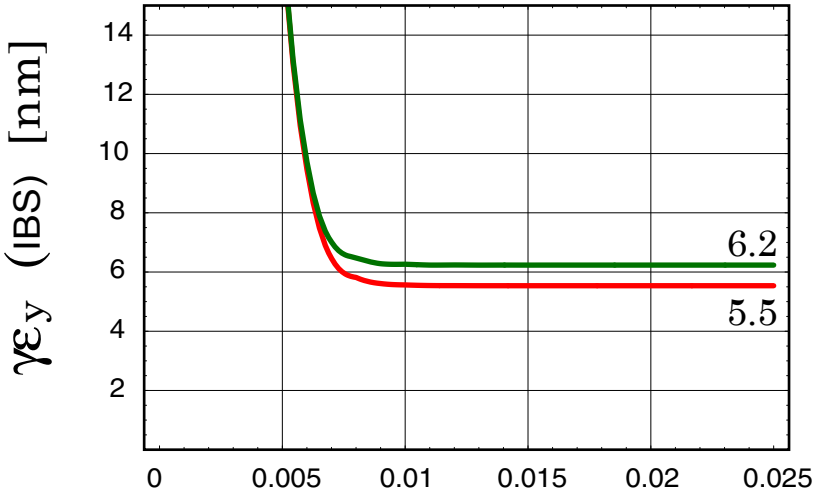


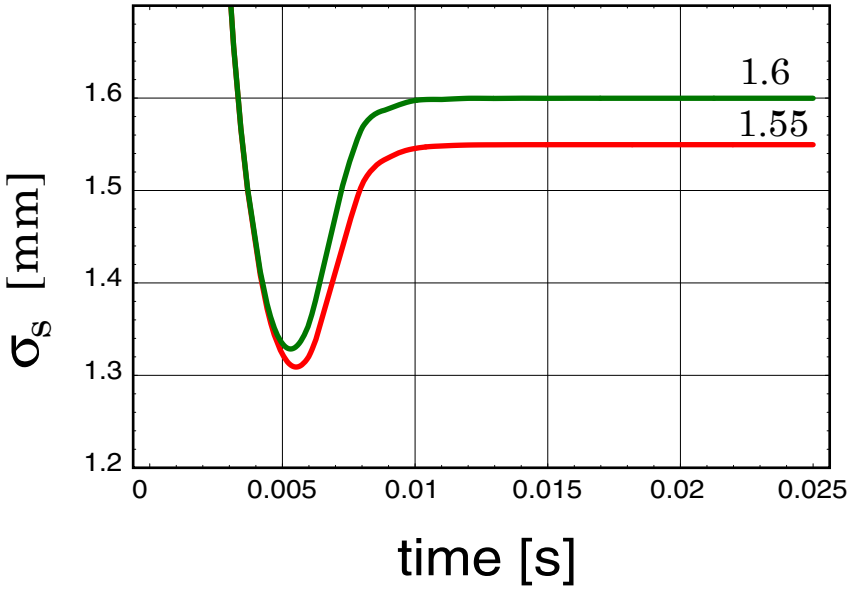
Emittance & bunch length evolution in CLIC_DR with wiggler period of 10.
Energy is 2.424 GeV, betatron coupling 1.1 %, RF volage 2.6 MV,
wiggler field 1.78 T.

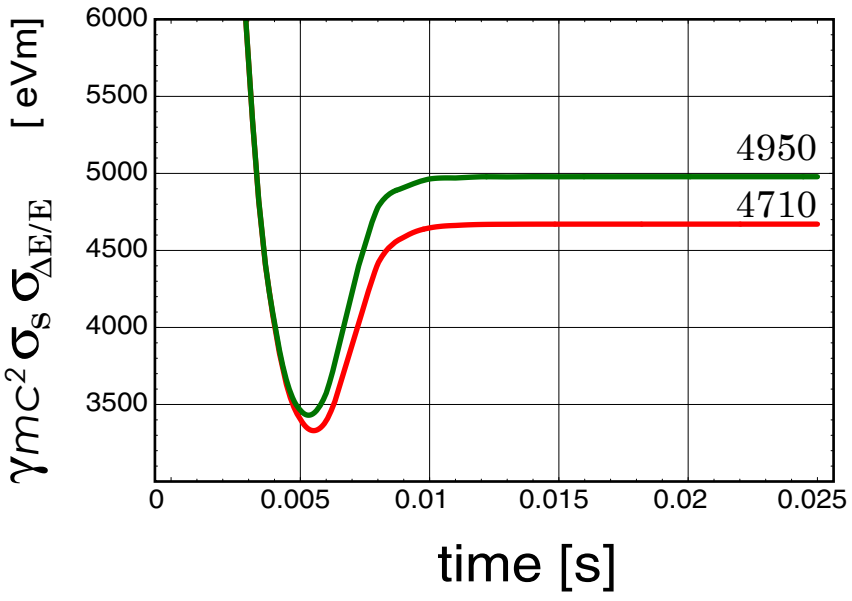
red line is bunch population of 3.0×10^9

green line is bunch population of 4.2×10^9









Emittance & bunch length evolution in CLIC_DR with wiggler period of 10 cm at wiggler field of 0.5, 1.0, 1.5 and 2.0 T. Energy is 2.424 GeV, betatron coupling 1.1 %, bunch population 4.2×10^9, RF phase is constant.