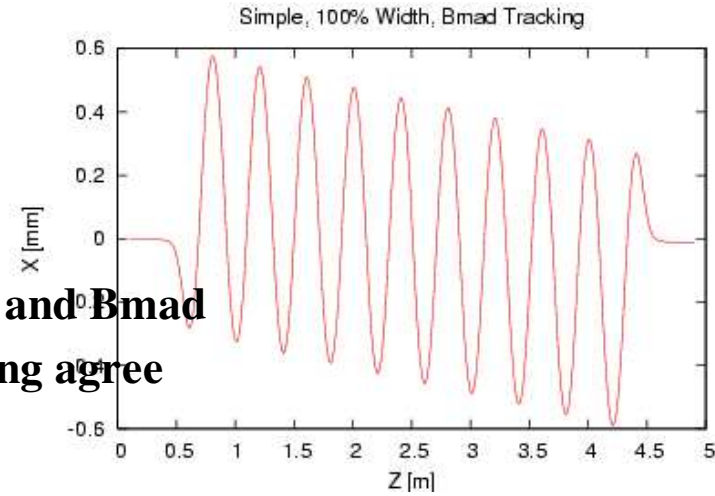
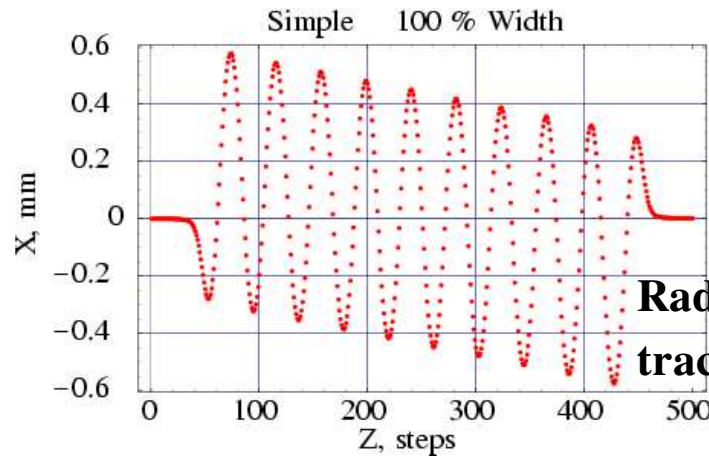


Field roll-off is not solely related to the width. The particulars of the CESR-c wiggler shape (cutout in pole face and rounded ends of pole) also contribute to the horizontal field roll-off. So to get a result which I can vary smoothly with the pole width I will remove the cutout and the rounded ends. The wiggler is still real and physical, it's just not the exact design of the CESR wigglers, but that is no problem.



**Radia and Bmad
tracking agree**

Simplified CESR Wiggler

(no rounded poles & no cut-out)

$X_{out} = -12\mu\text{m}$ (Bmad), $2\mu\text{m}$ (Radia)

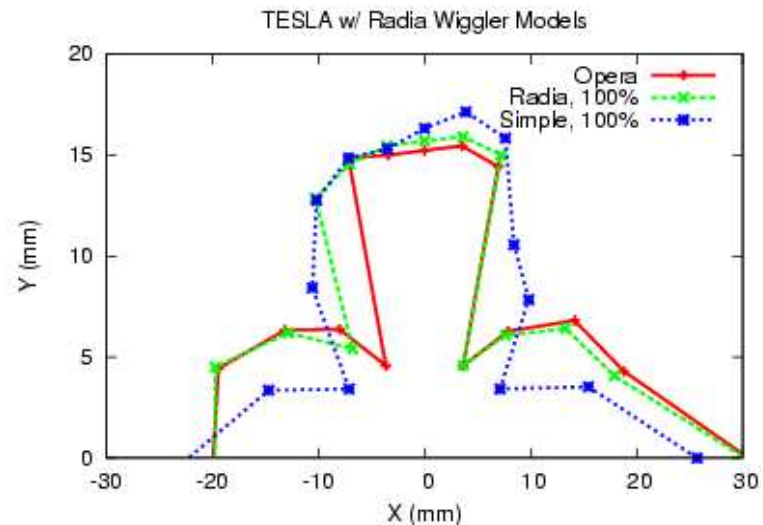
dB/B @ $x=10\text{mm} = 0.06\%$

Field Quality:

TESLA (60 mm) = 0.59%

TESLA (shimmed) = 0.055%

CESR-c (Opera) = 0.0077%



At 0.06% field roll-off I still have good dynamic aperture. I will drop the width of the poles to increase the field roll-off until I begin to degrade the dynamic aperture.