TRACK Vs TRACEWIN Lattice CW 07-DEC-2010

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Fermilab / Accelerator Physics Center

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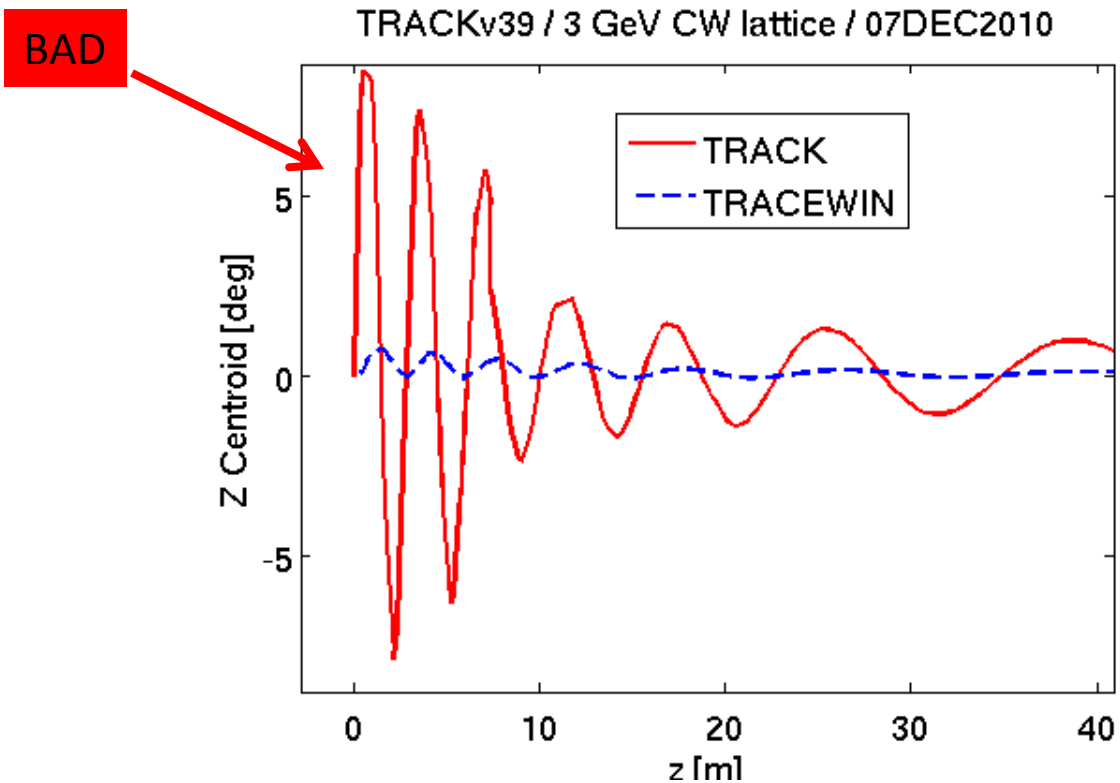
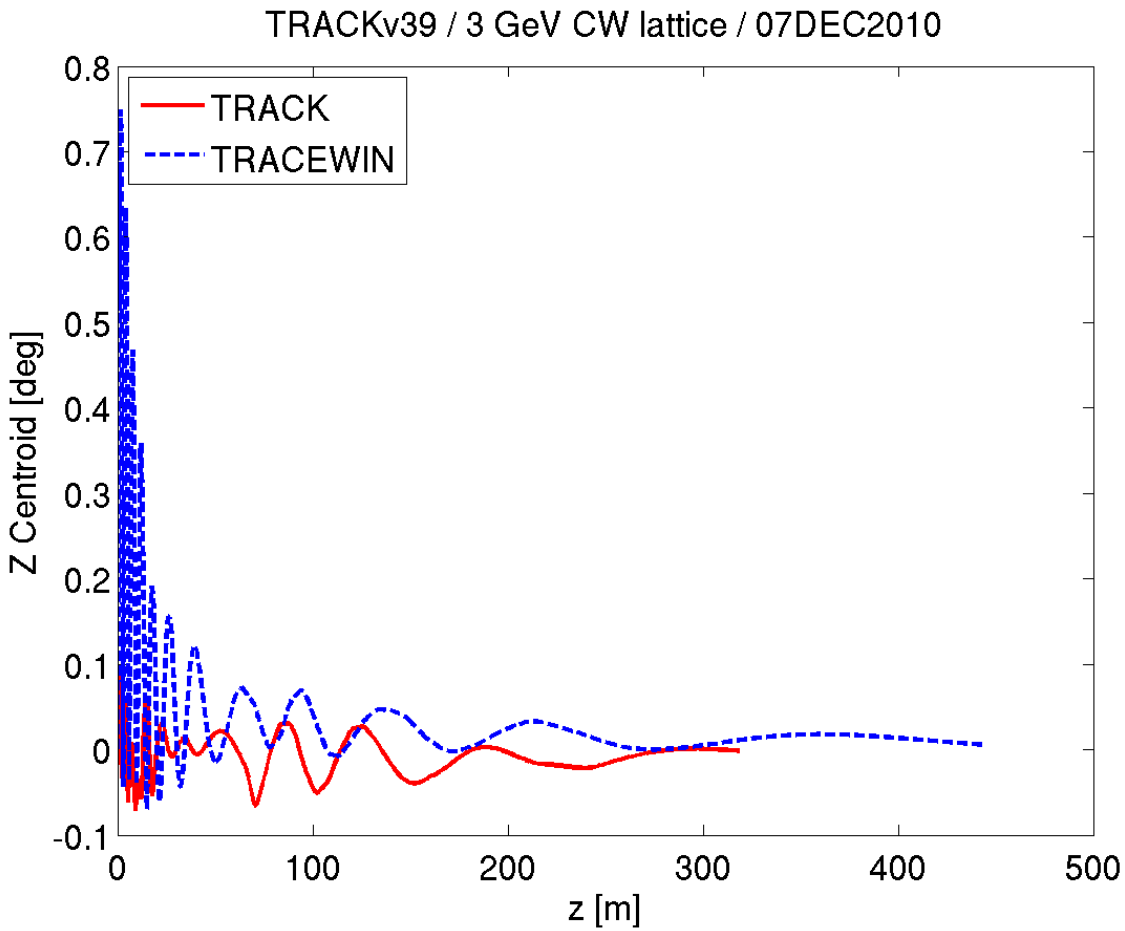
AV Input Dist. (Windows,Ascii)

- New lattice CW provided by AV on Dec. 7th, 2010



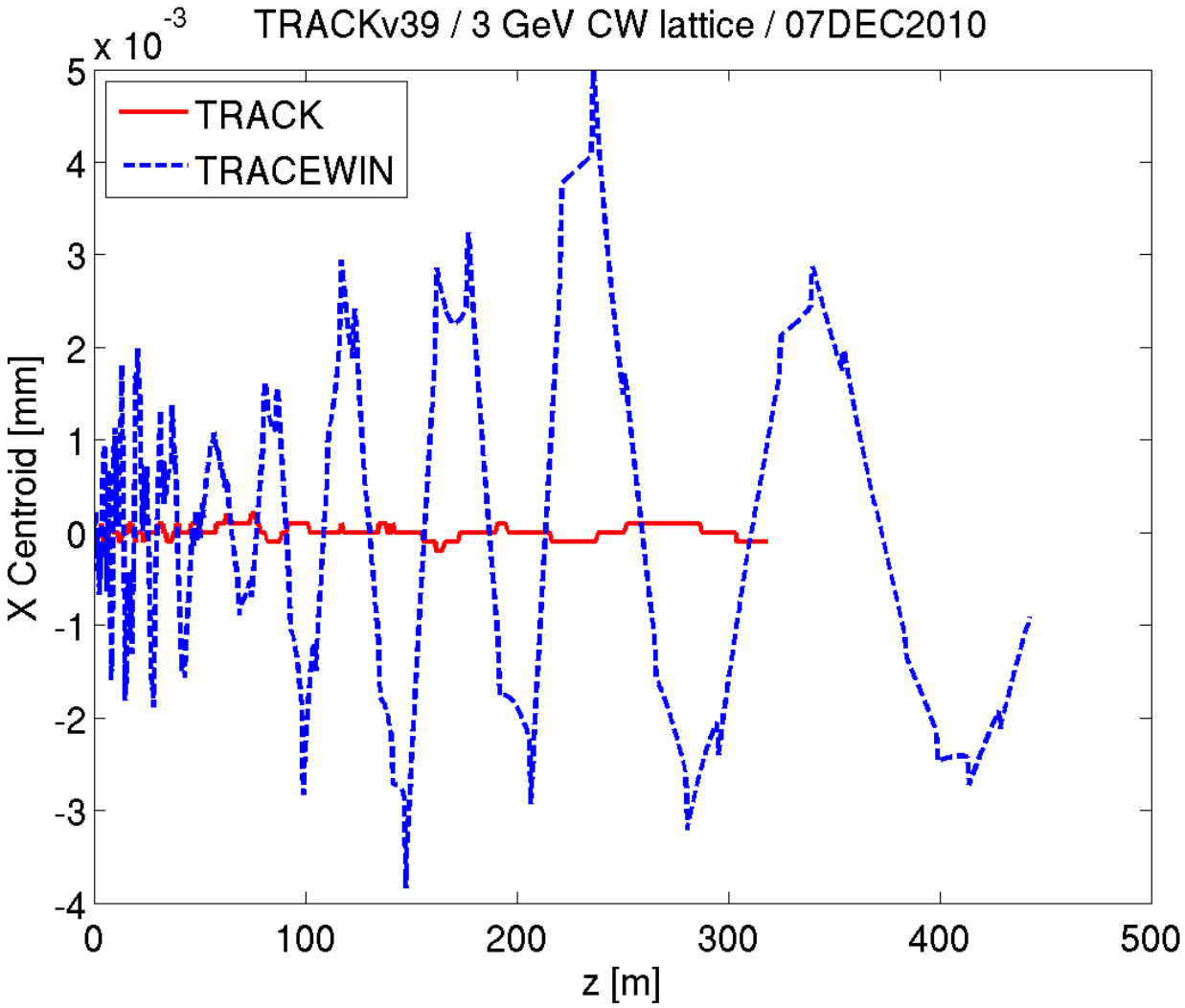
JFO Input Dist. (Linux,Binary)

BETTER

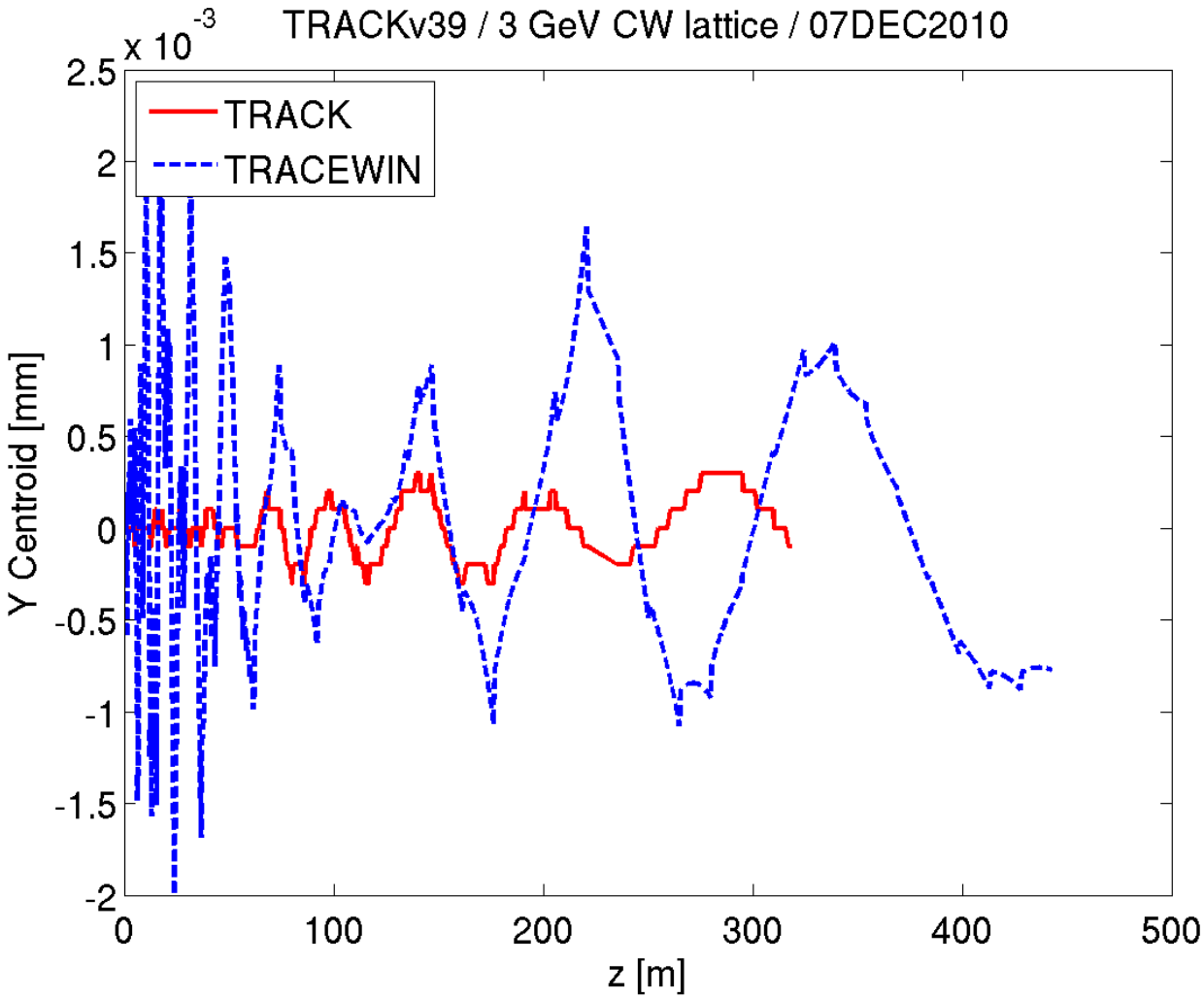


Fermilab

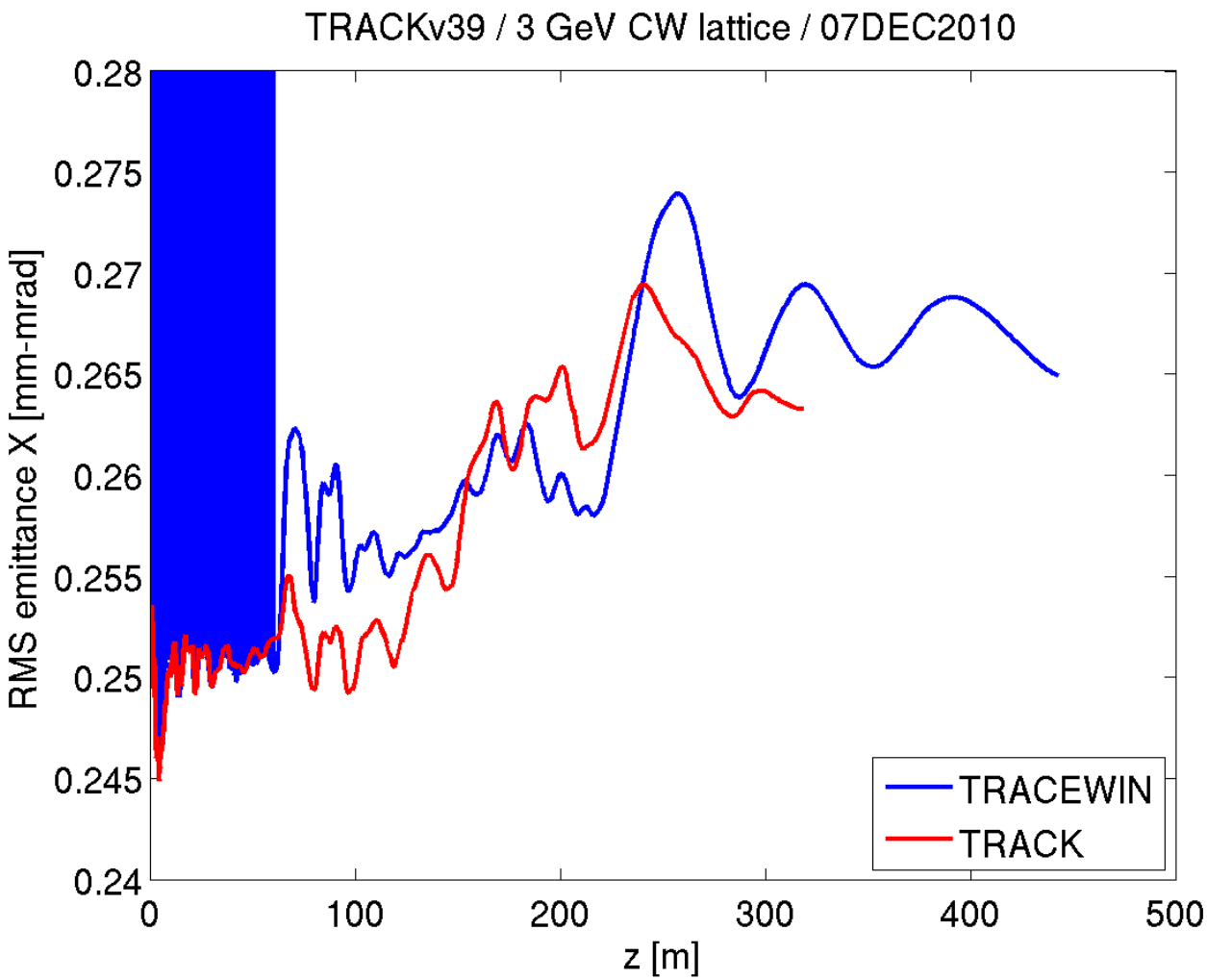
Centroid X / 1M



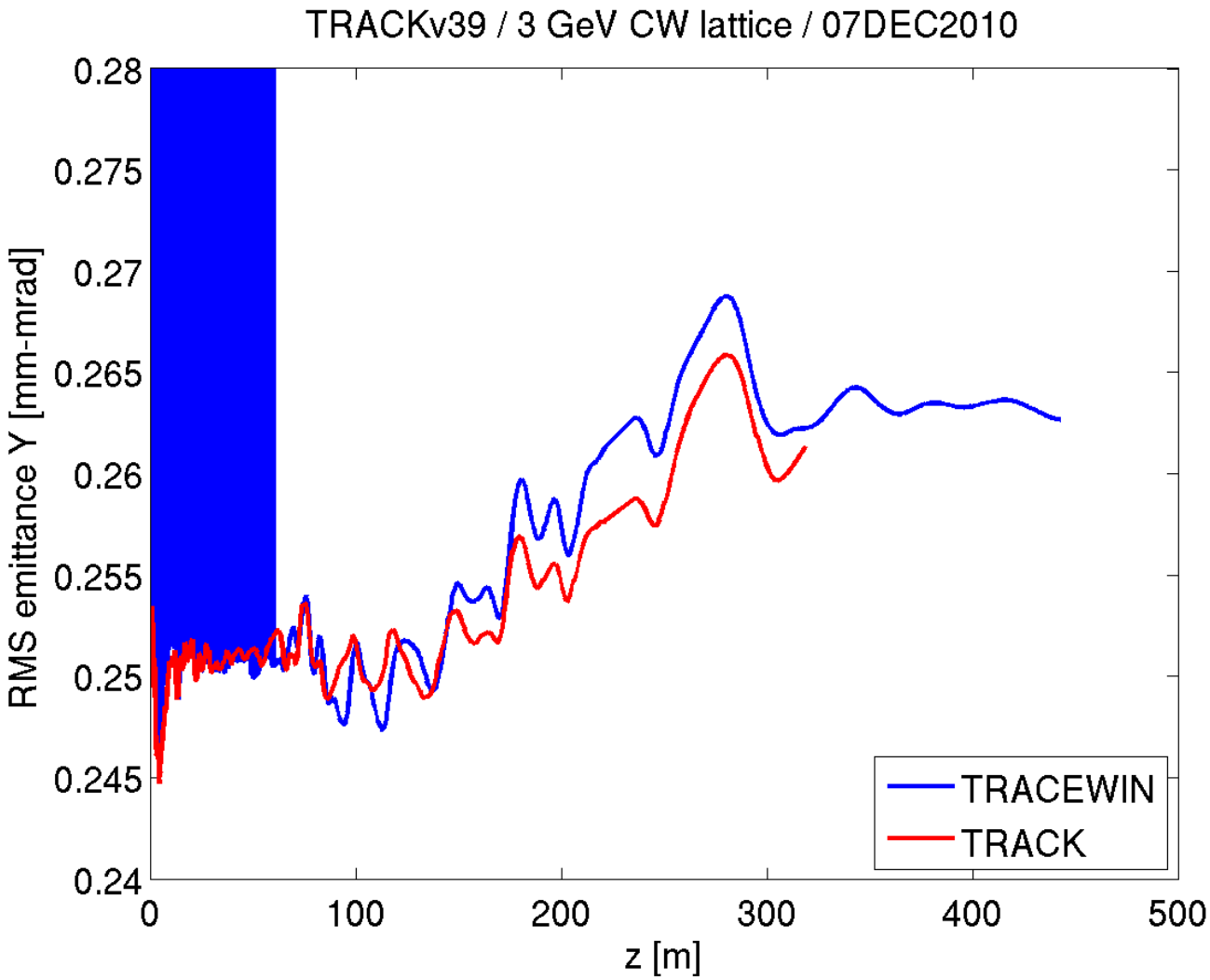
Centroid Y / 1M



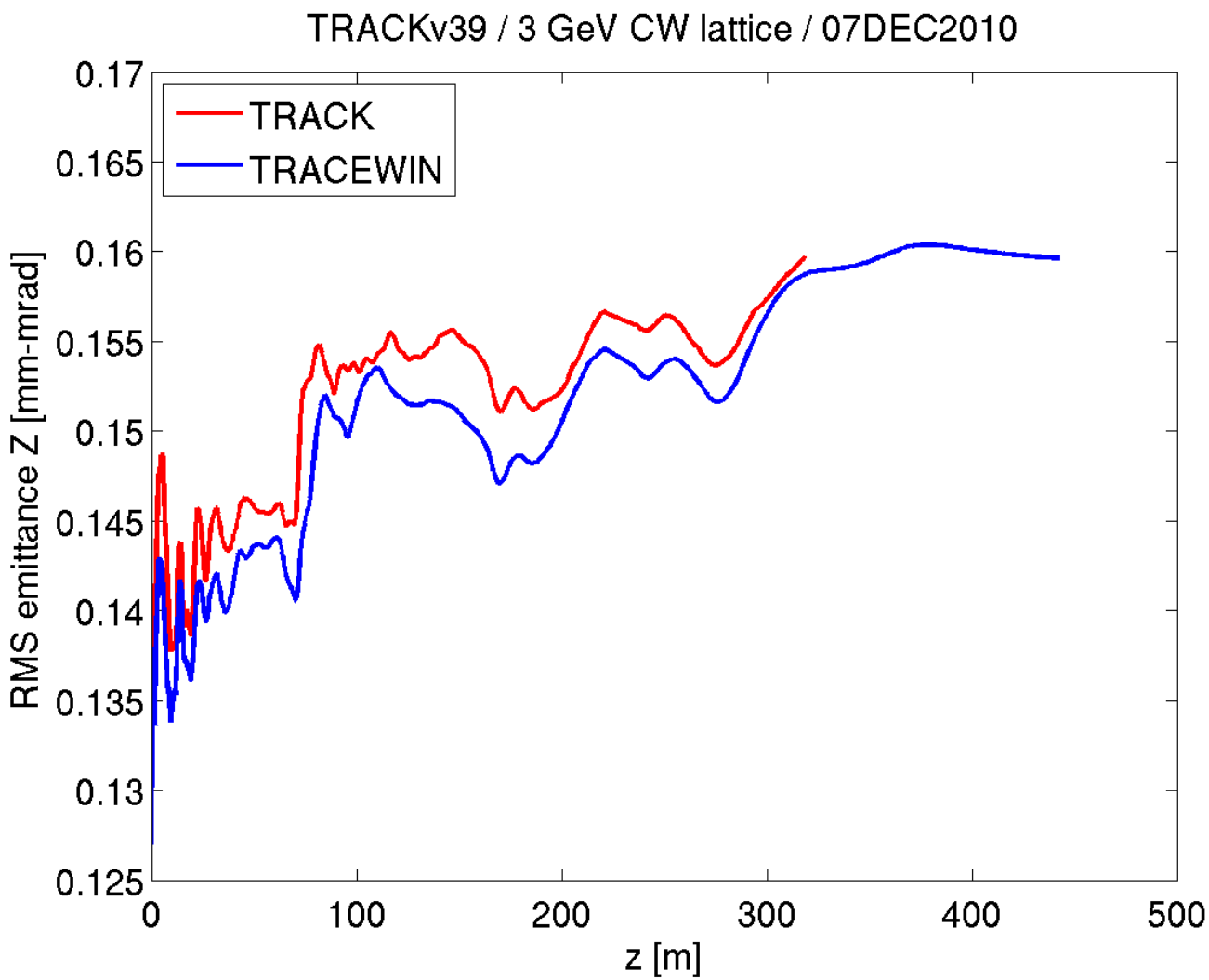
Emittance X / 1M



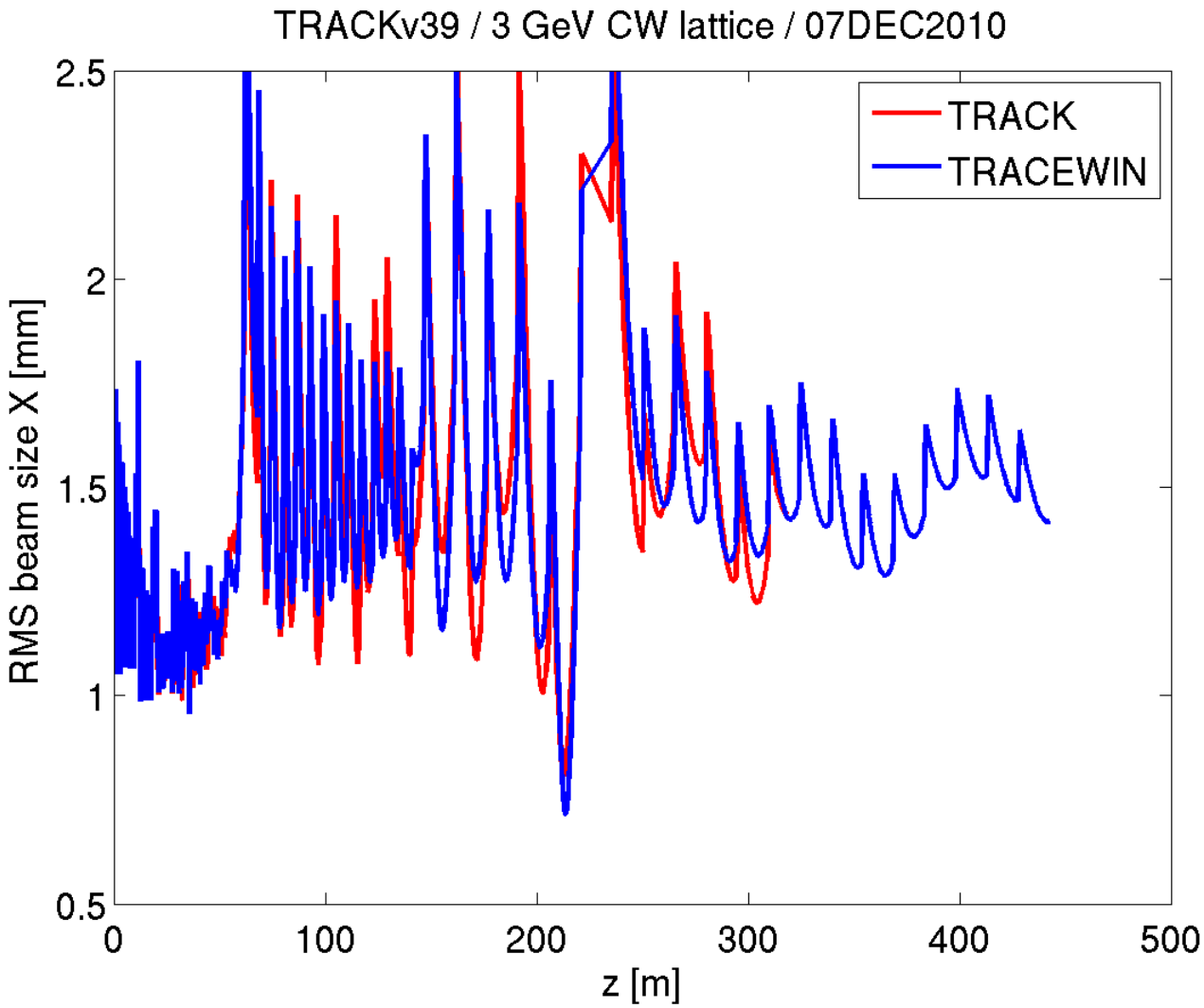
Emittance Y / 1M



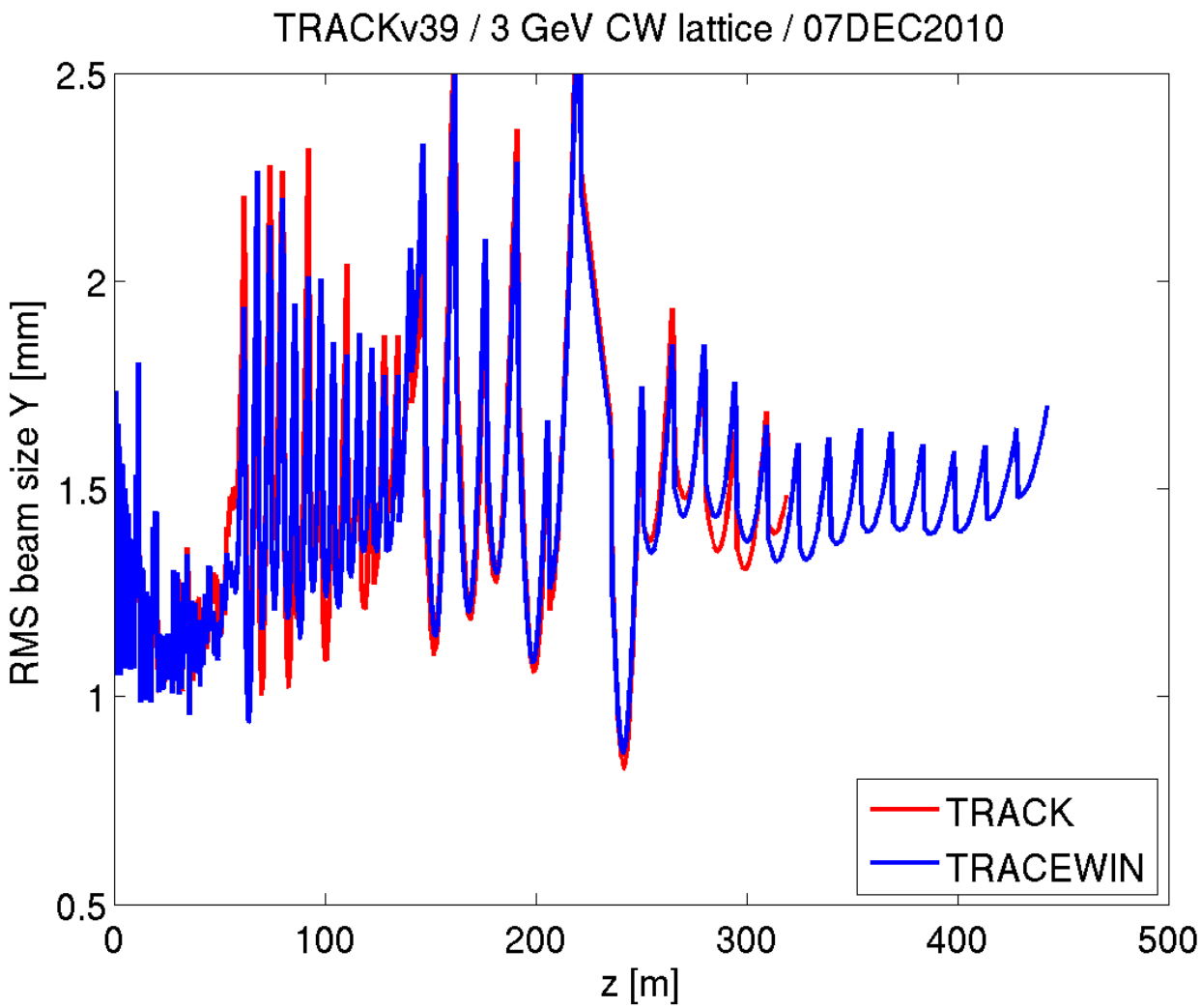
Emittance Z / 1M



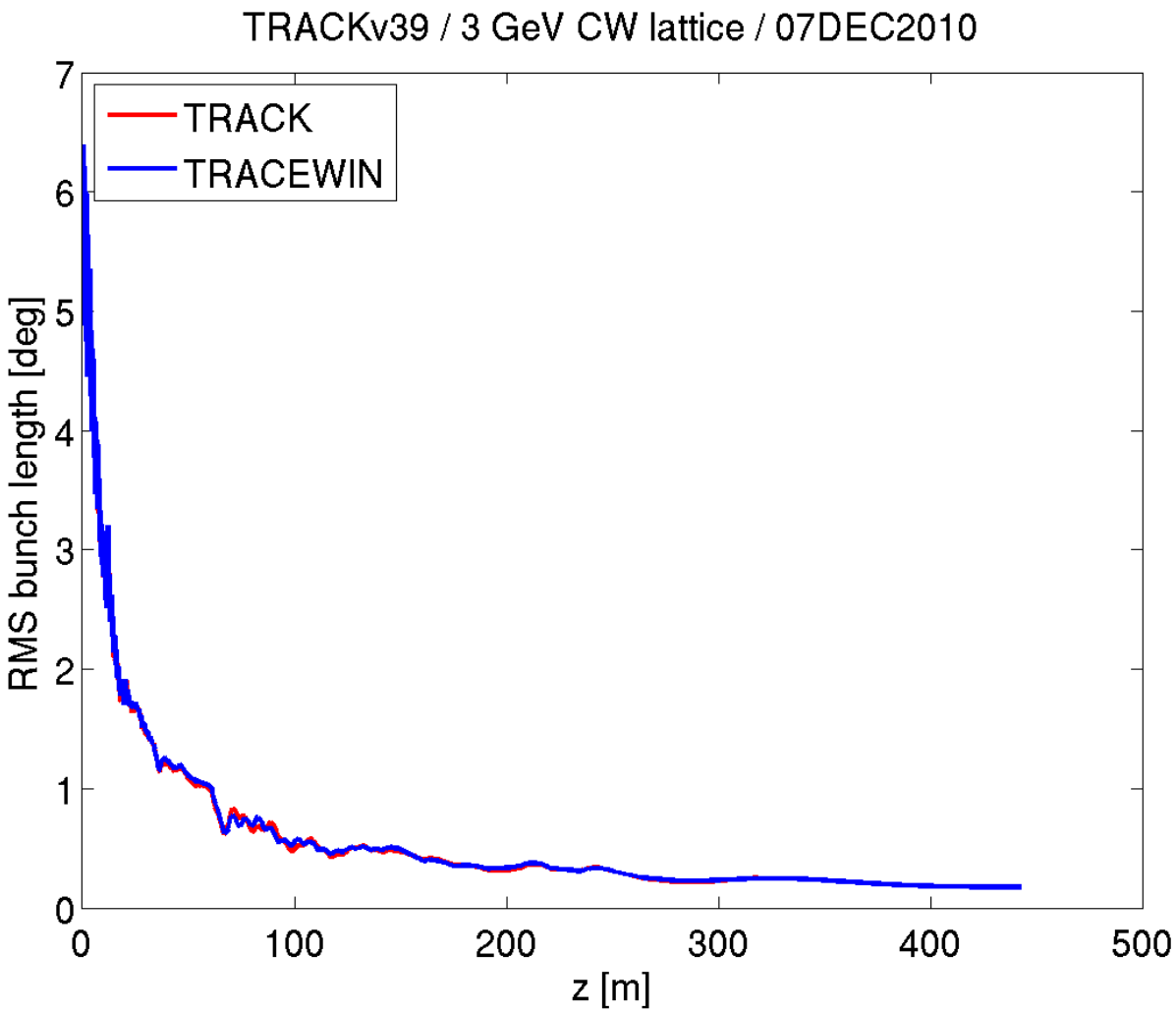
Size X / 1M


TRACKv39 / 3 GeV CW lattice / 07DEC2010
TRACK
TRACEWIN
RMS beam size X [mm]
z [m]
2.5
2
1.5
1
0.5
0
100
200
300
400
500

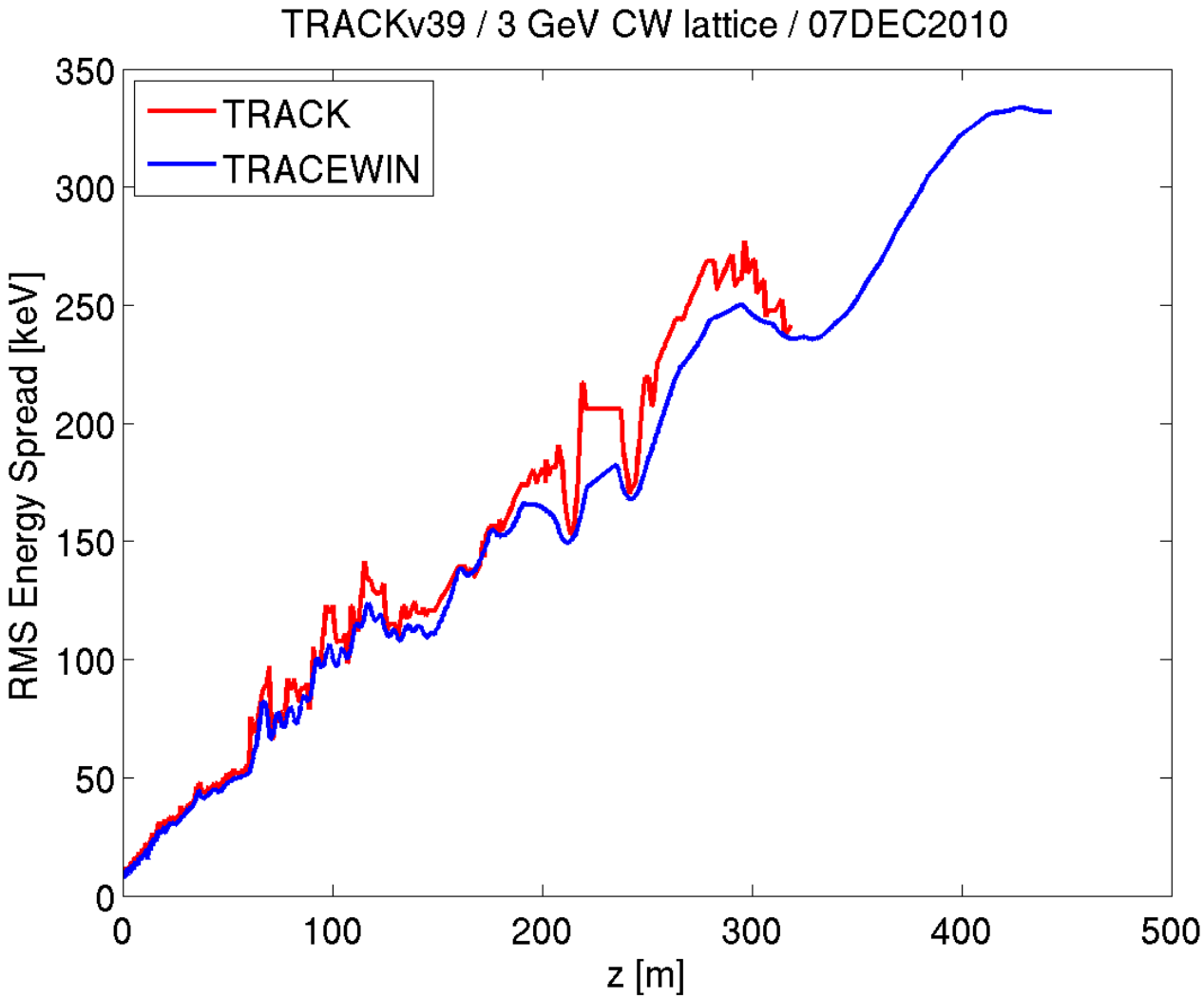
Size Y / 1M


TRACKv39 / 3 GeV CW lattice / 07DEC2010
RMS beam size Y [mm]
z [m]
2.5
2
1.5
1
0.5
0
100
200
300
400
500
TRACK
TRACEWIN

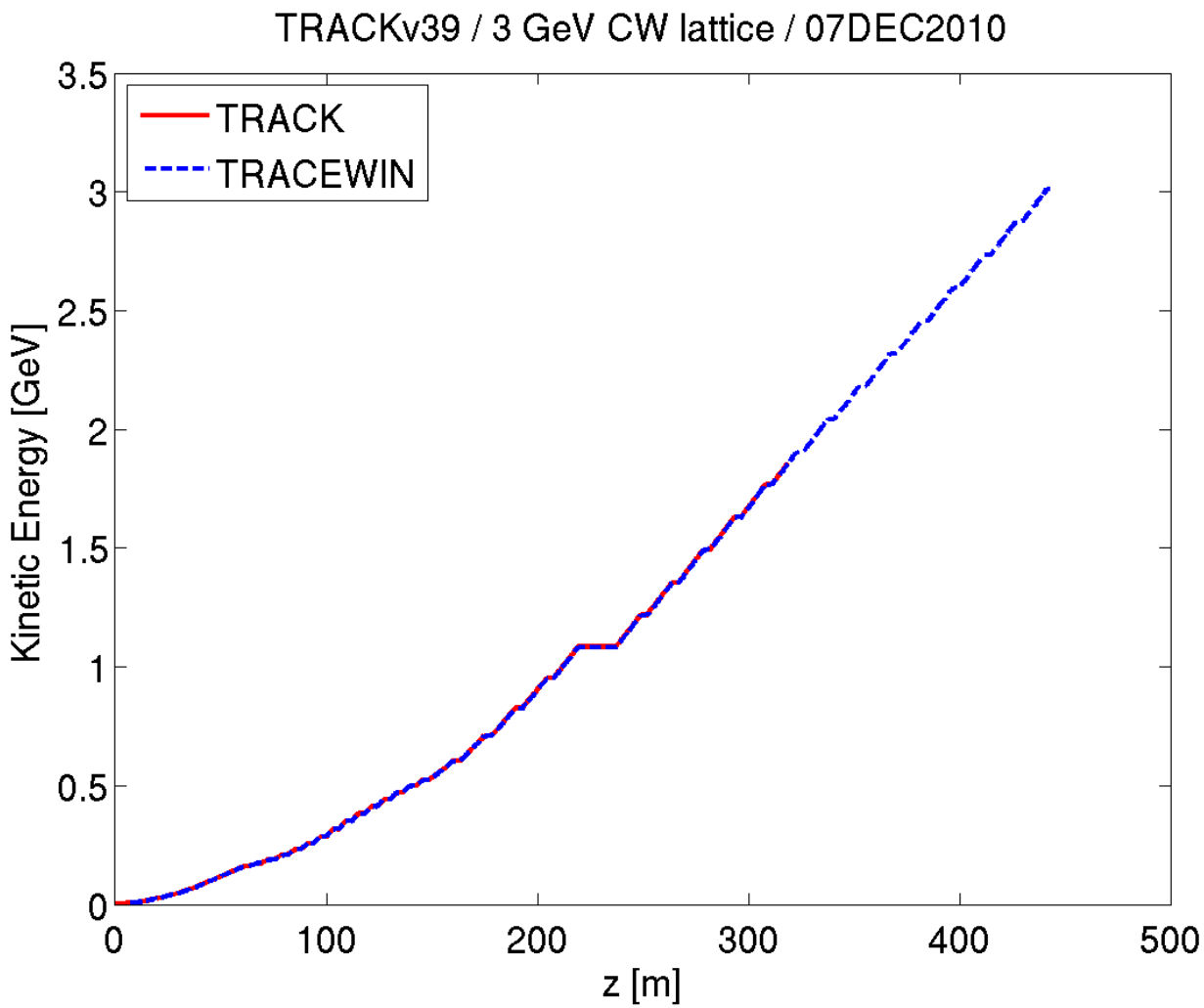
Bunch Length / 1M



Energy Spread / 1M



Energy/ 1M


TRACKv39 / 3 GeV CW lattice / 07DEC2010
TRACK
TRACEWIN
Kinetic Energy [GeV]
z [m]
0
0.5
1
1.5
2
2.5
3
3.5
0
100
200
300
400
500

3D SC in TRACK (à la JFO)

```
1 prmtr zlhSC=5
1 prmtr xylhSC=3
1 prmtr gridSC=16 16 32
```

→Overall TRACK/TRACEWIN benchmarking looks good!

→ TRACK with 1M will take ~1 day to compete ~400 meters

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