

# 1. What on my plate?

## 1) tracking data post-processing

WP685695: BB, BB\_HBBC, BB\_FBBC  
macthed and un-mathced initial distr.

WP695685: BB, BB\_HBBC, BB\_FBBC  
macthed and un-mathced initial distr.

WP685695: Np=3.0e11, 2/3BBC  
macthed and un-mathced initial distr.

WP695685: Np=3.0e11, 2/3BBC  
macthed and un-mathced initial distr.

What information can we extract from them:

beam lifetime, emittance  
particle migrations, which particle lost,...

## 2) Benchmark RHIC observation

to verify our tracking code  
one case from run06, one from run08

only Blue ring can be simulated since  
by now we have not yellow IR errors.

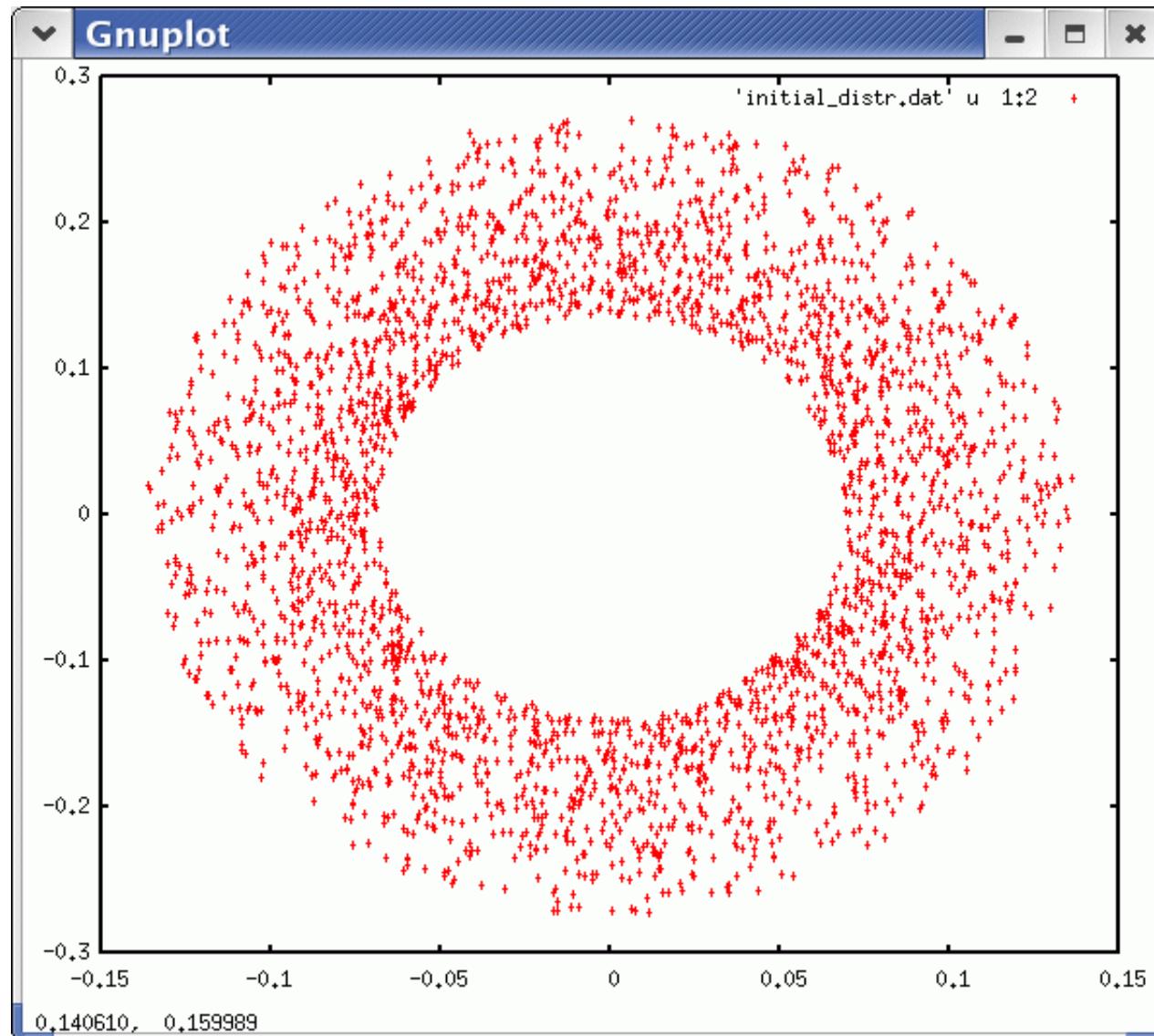
No hope for emittance comparison,  
maybe possible for beam lifetime comparison.

## 3) Resonance driving term calculation

## 4) Track up to $10^7$ for emittance predication

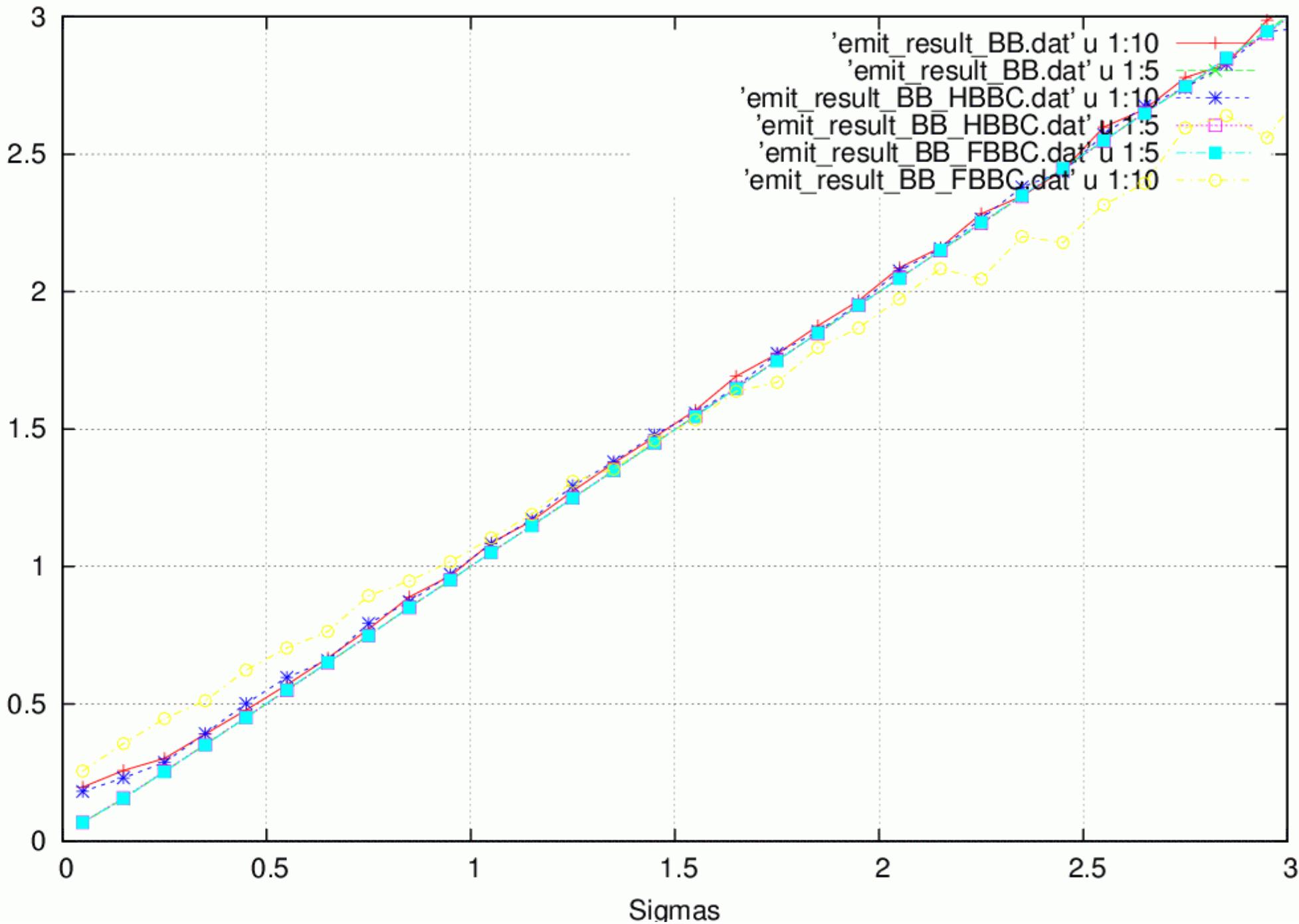
## 5) Phase advance between BB and BBC

## 2. Particle migration



Focus on certain particles:  
 $\sigma_1^2 \cdot \text{emit}_0 < 2J < \sigma_2^2 \cdot \text{emit}_0$

## WP685695



### 3. Lost Particles' initial coordinates

