

Elegantによる軌道計算

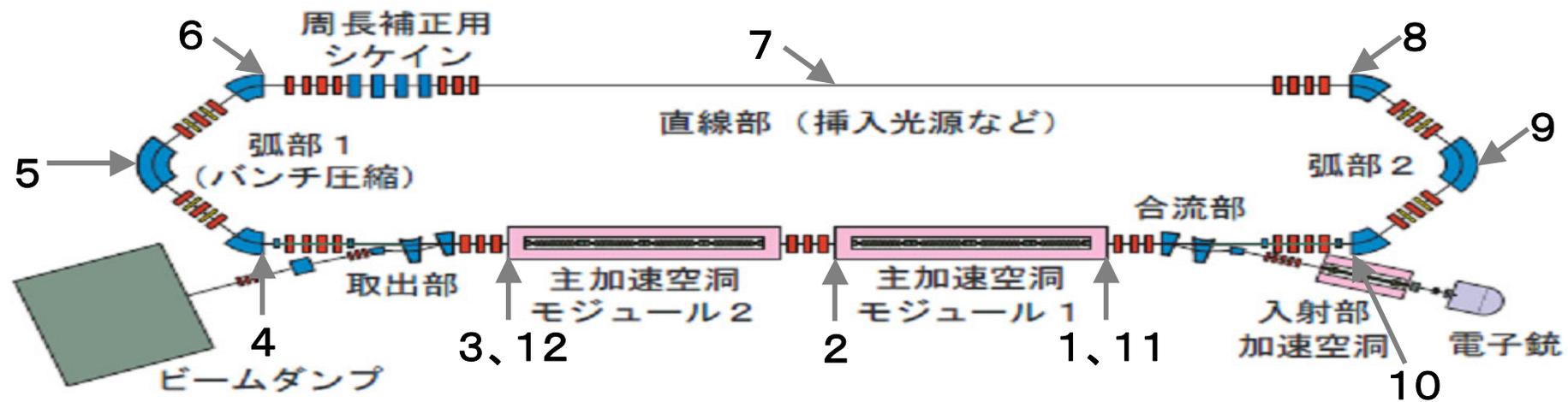
東京大学大学院
理学系研究科 物理学専攻 修士2年

白神剛志

4月10日

実施項目

1. 加速空洞にてエッジフォーカスのありなしでの比較
2. 六極の設定によるバンチ圧縮(CSRなし)



加速空洞にて

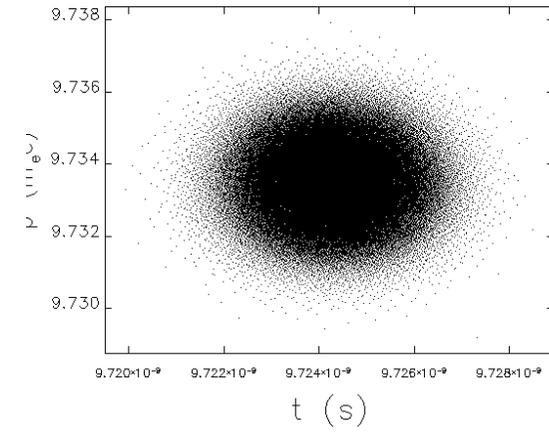
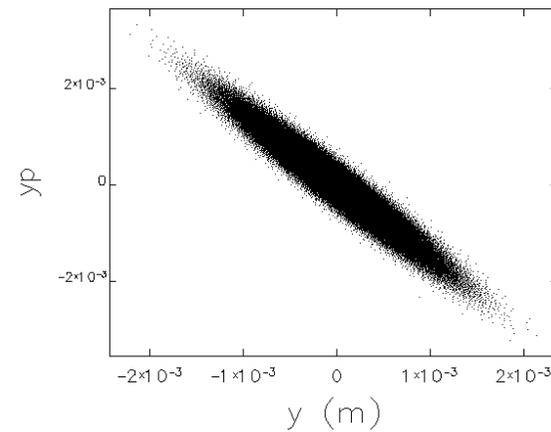
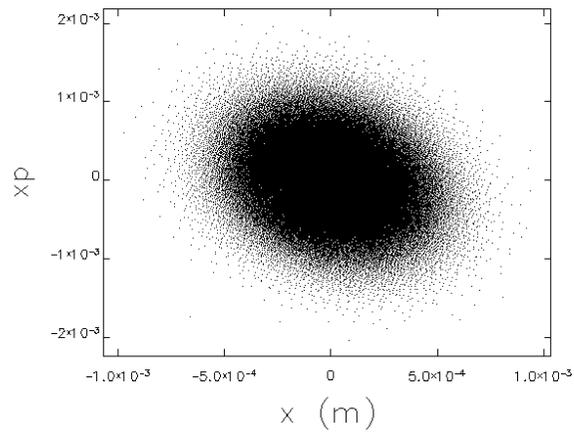
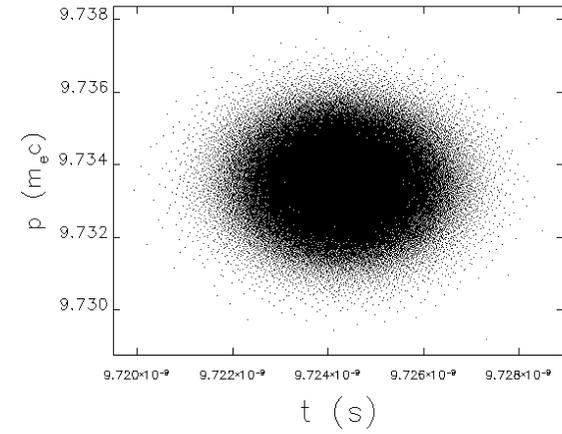
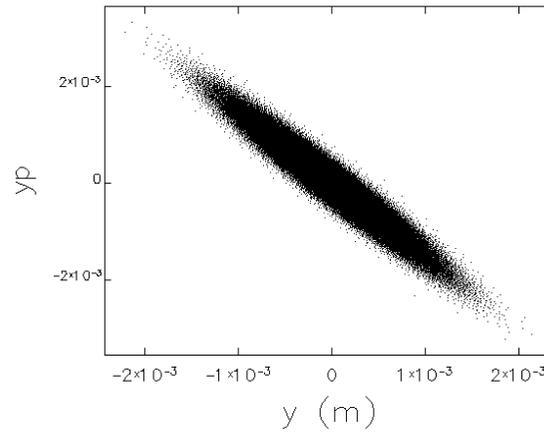
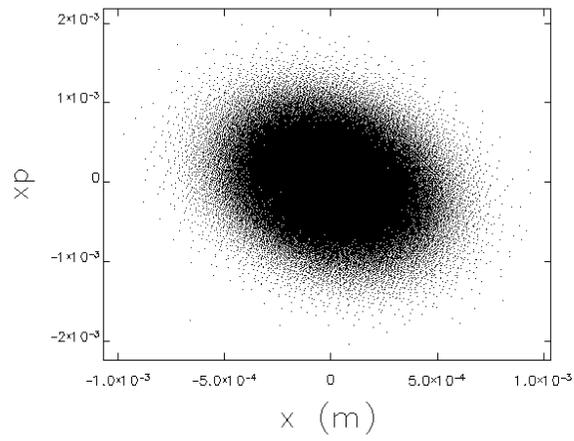
SRSのボディ収束なし、エッジフォーカスなし

加速空洞にて

SRSのボディ収束あり、エッジフォーカスあり

加速空洞にて

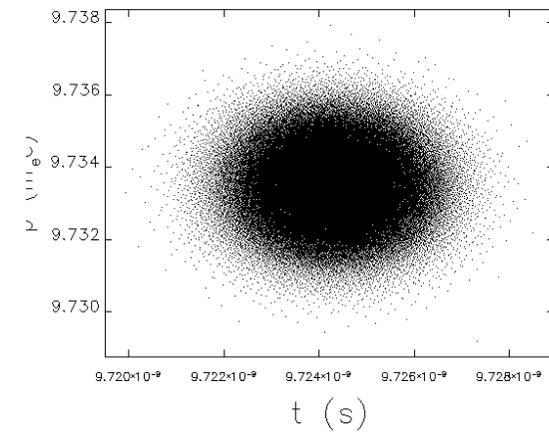
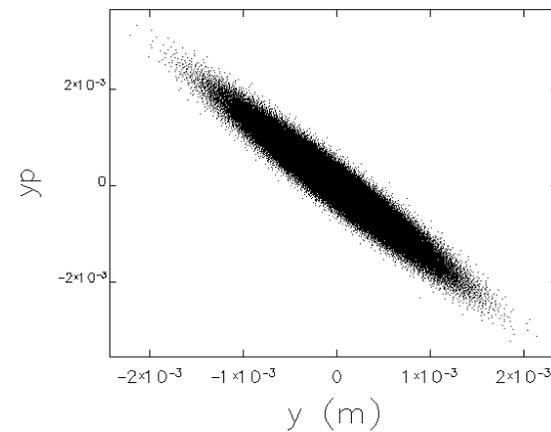
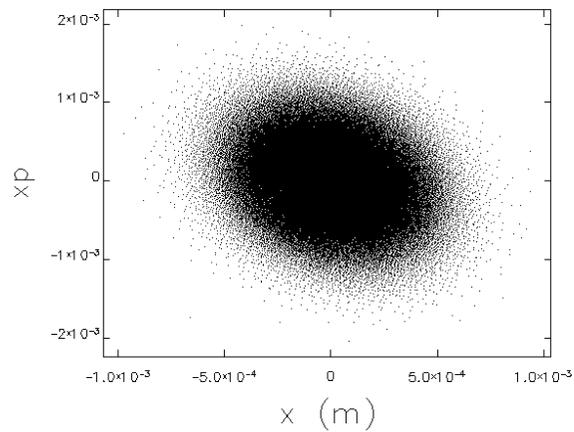
SRSのボディ収束なし、エッジフォーカスあり



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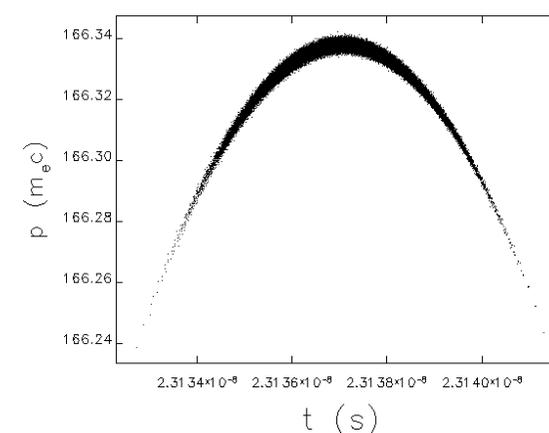
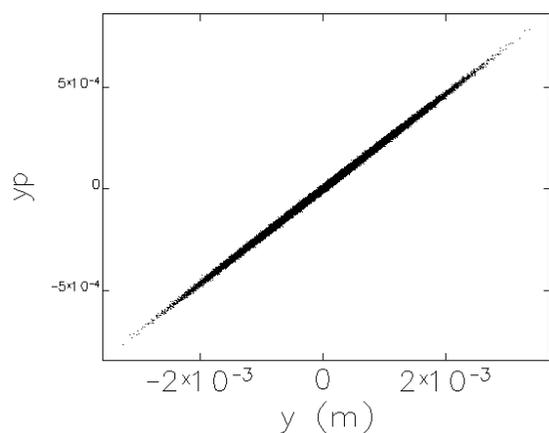
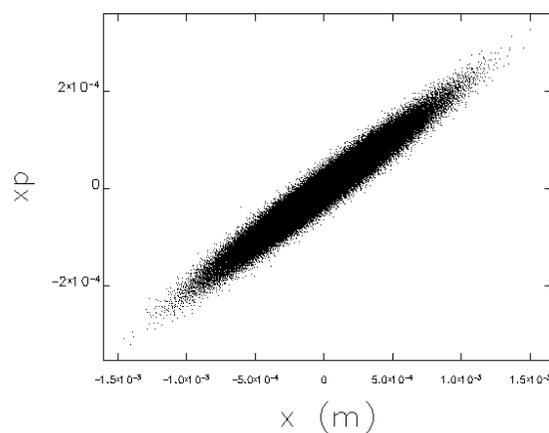
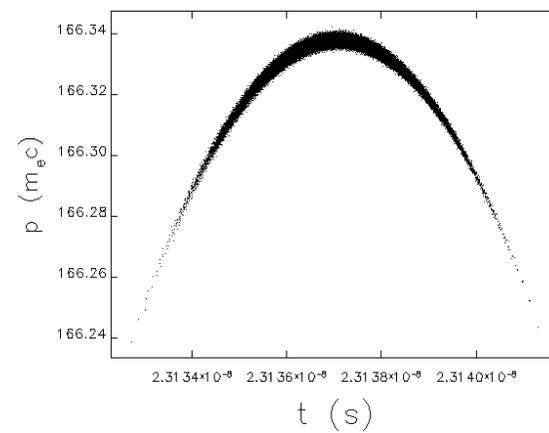
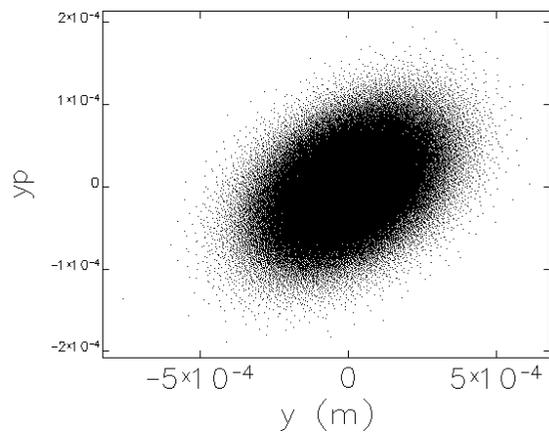
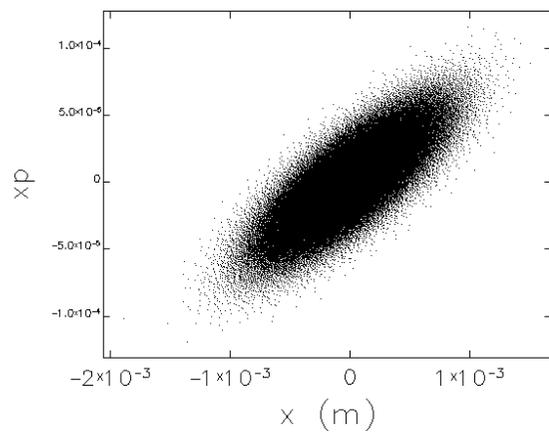
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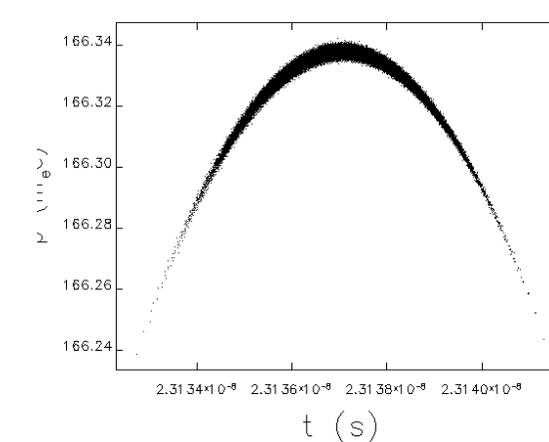
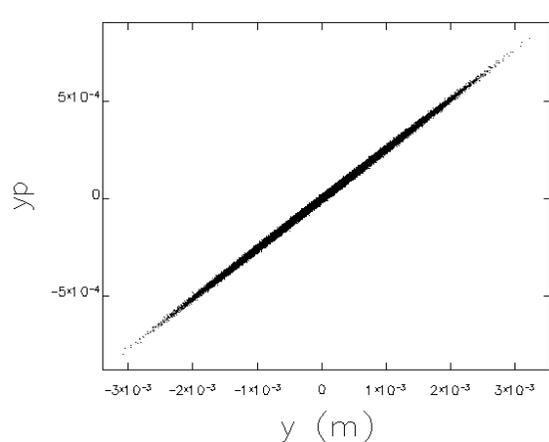
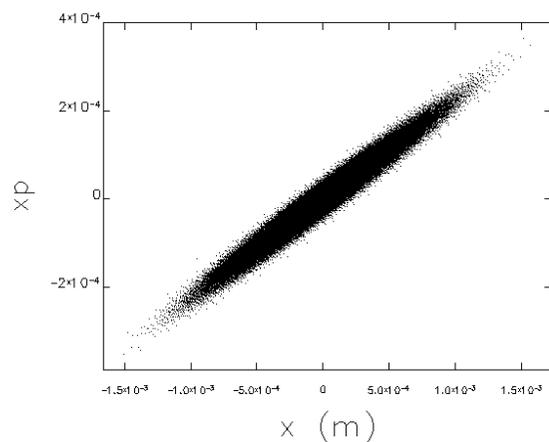
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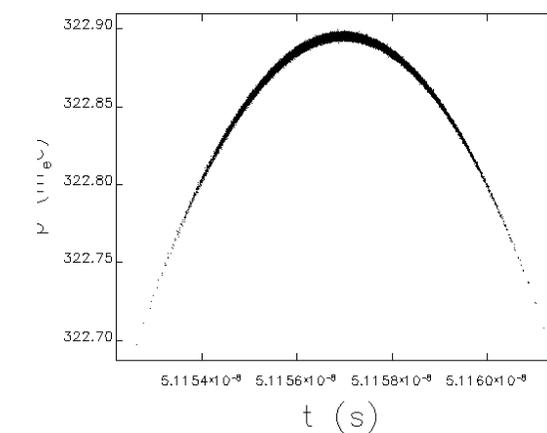
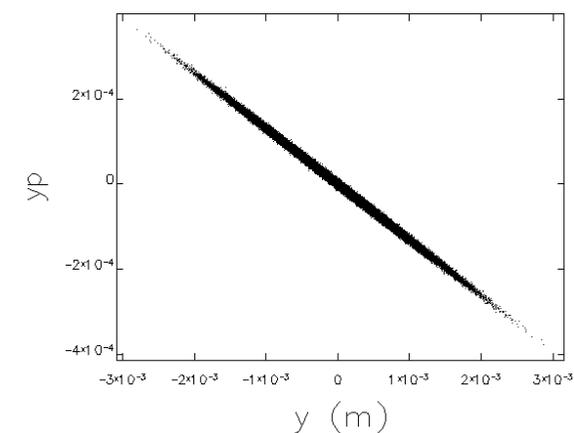
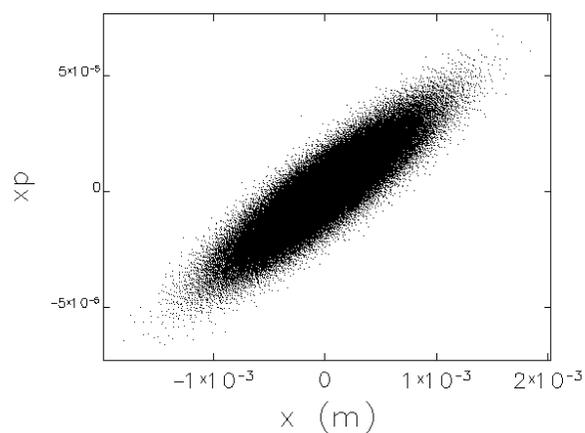
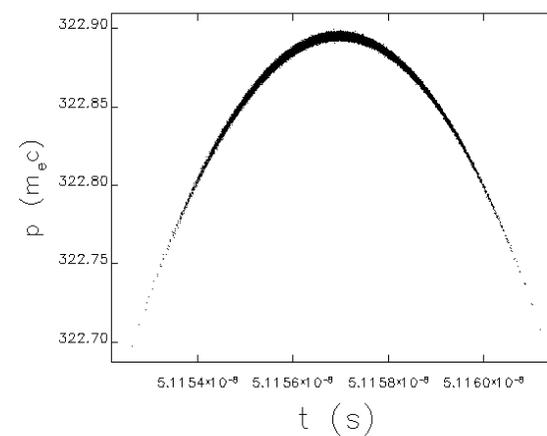
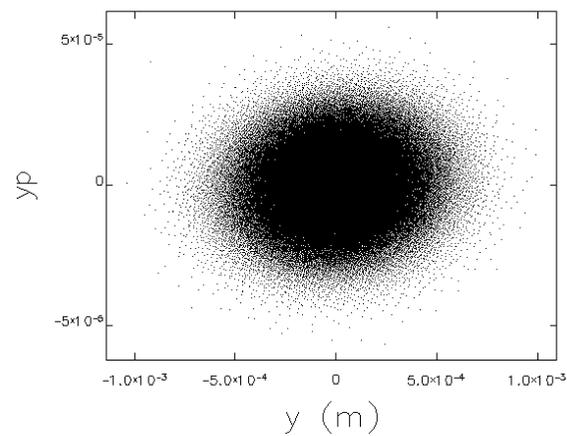
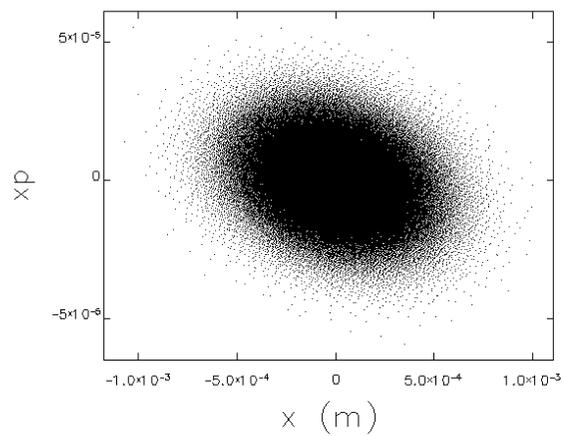
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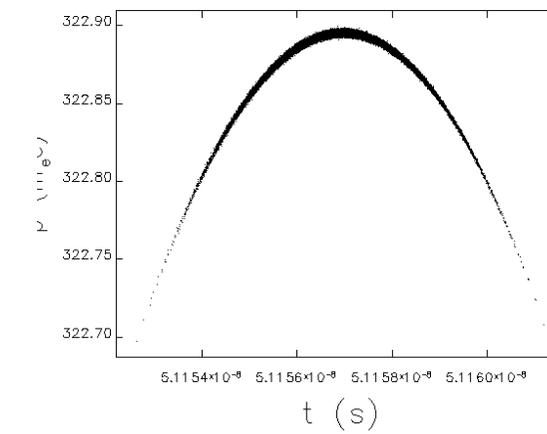
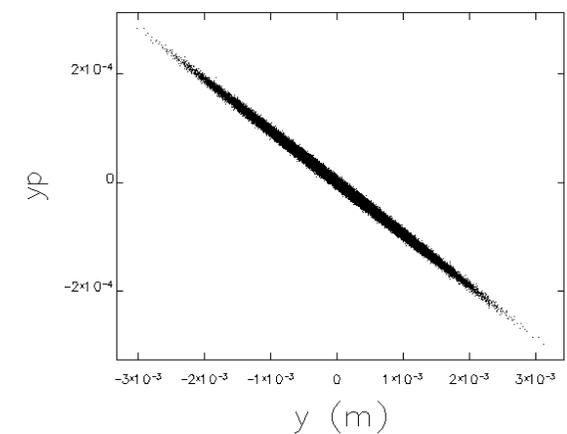
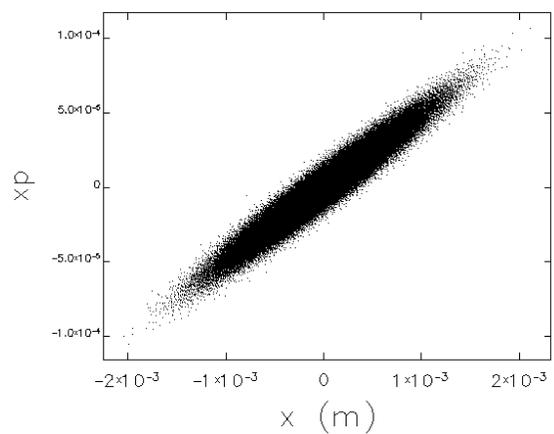
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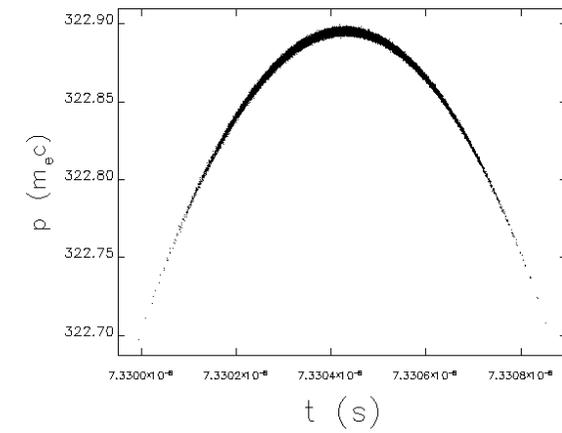
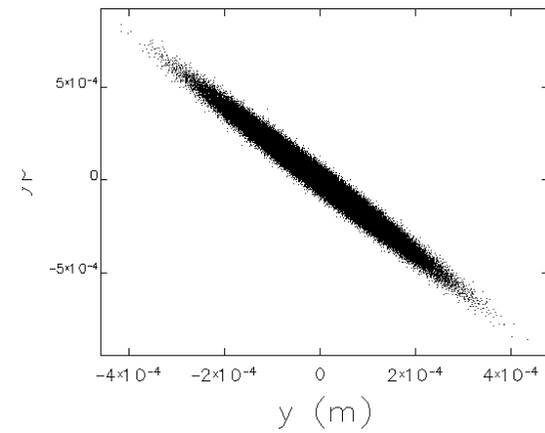
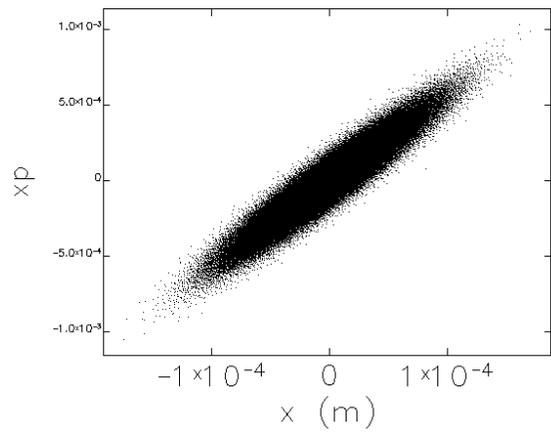
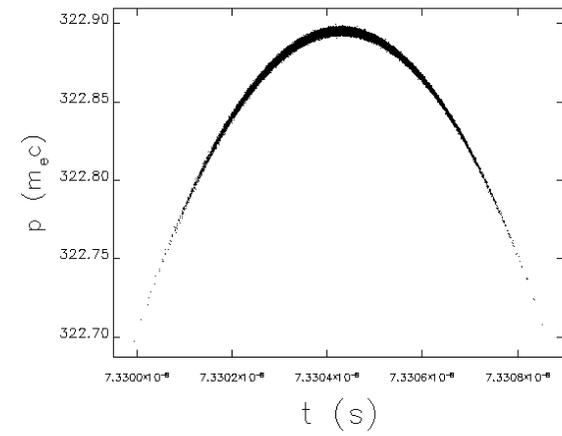
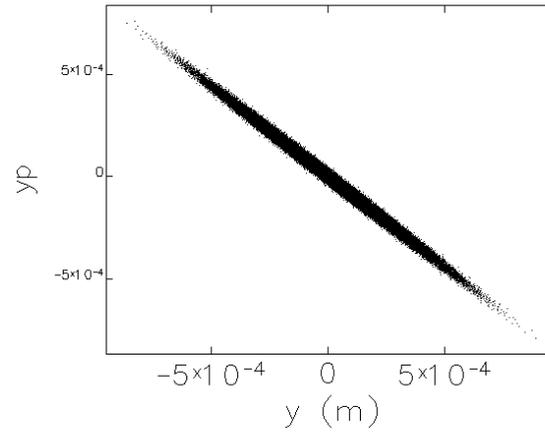
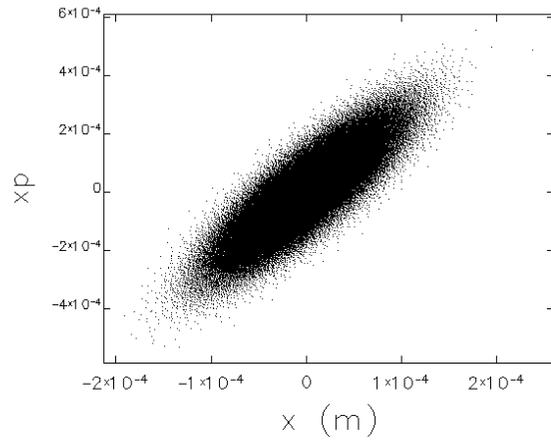
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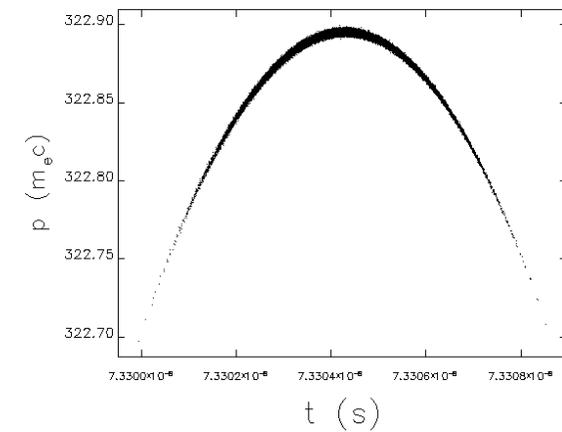
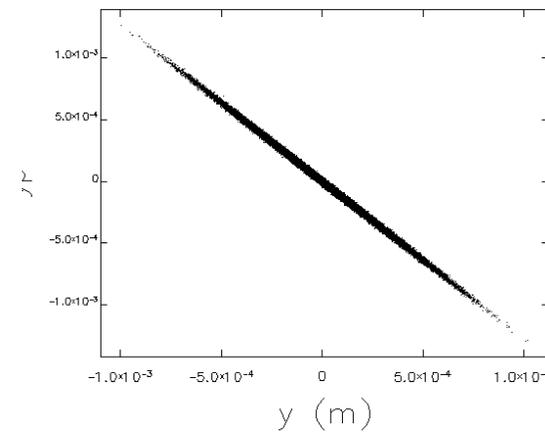
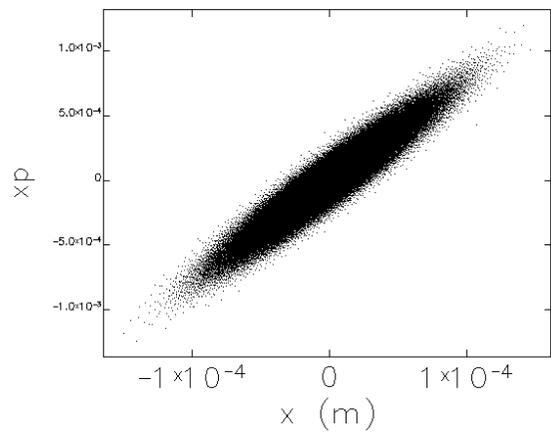
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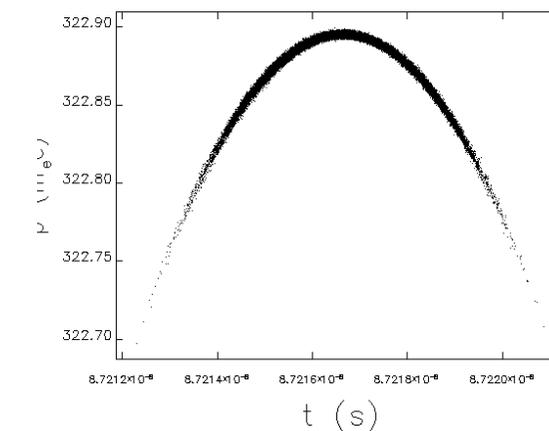
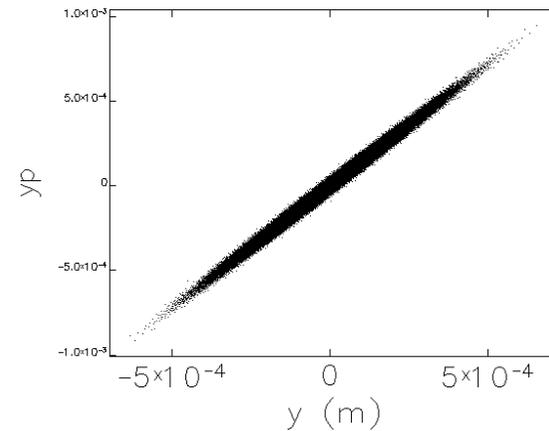
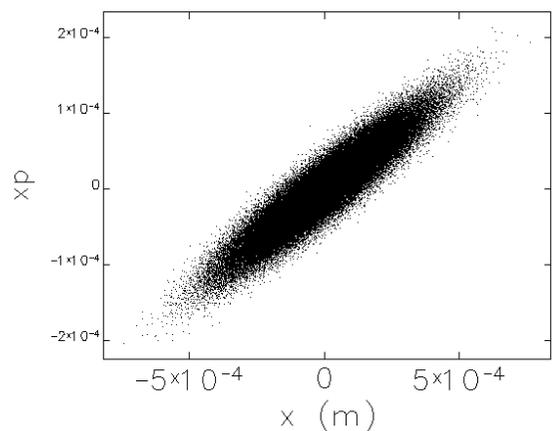
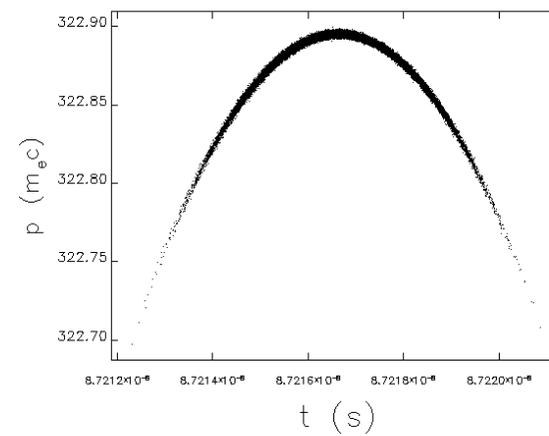
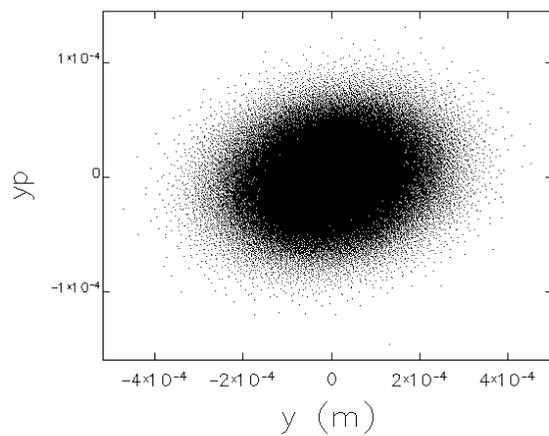
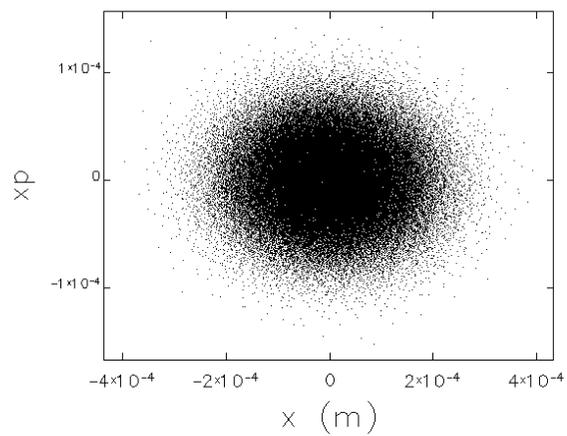
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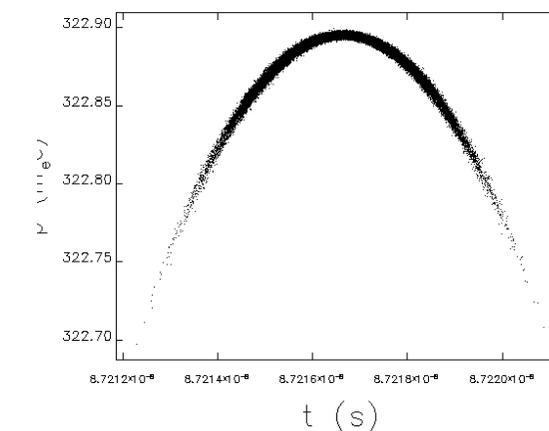
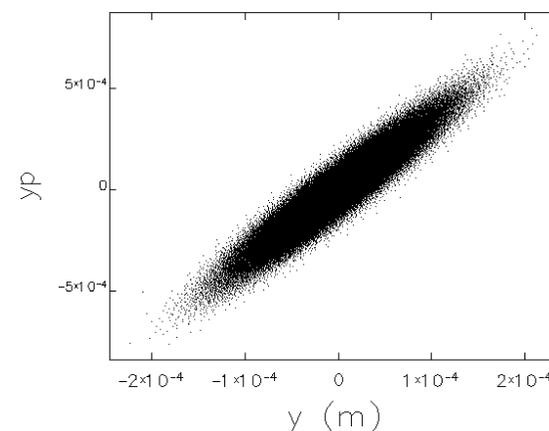
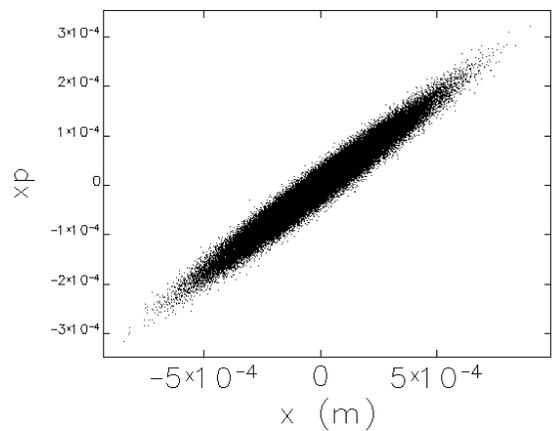
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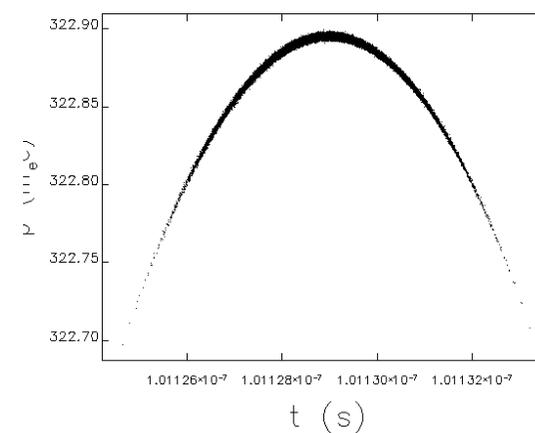
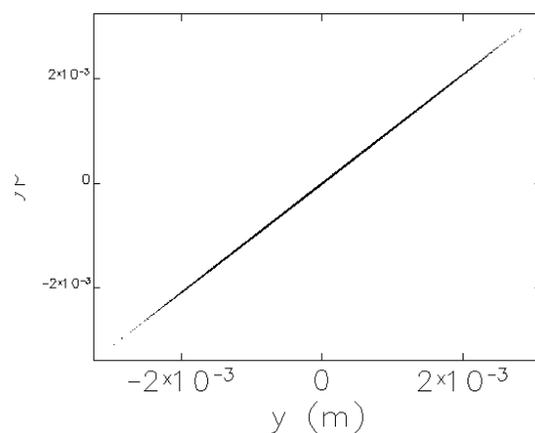
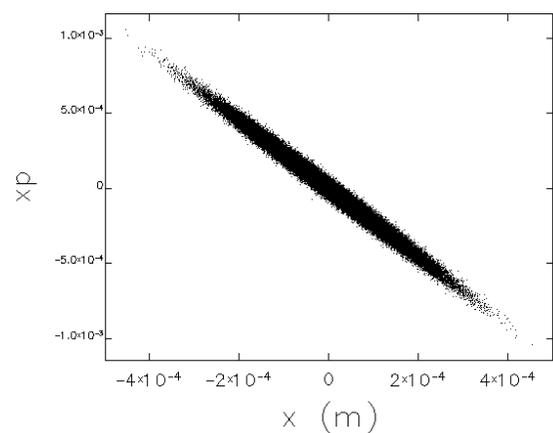
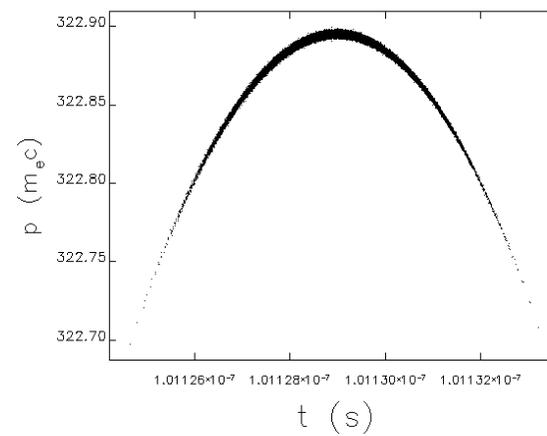
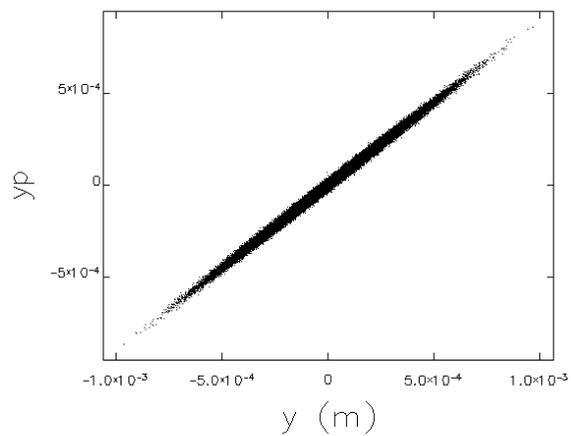
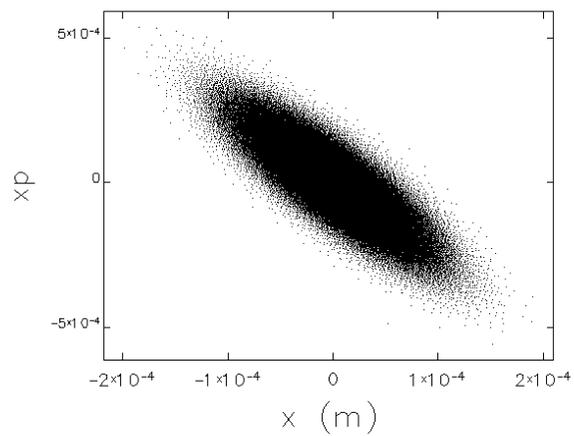
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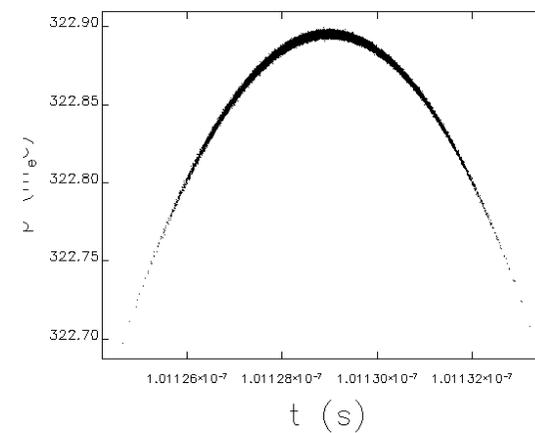
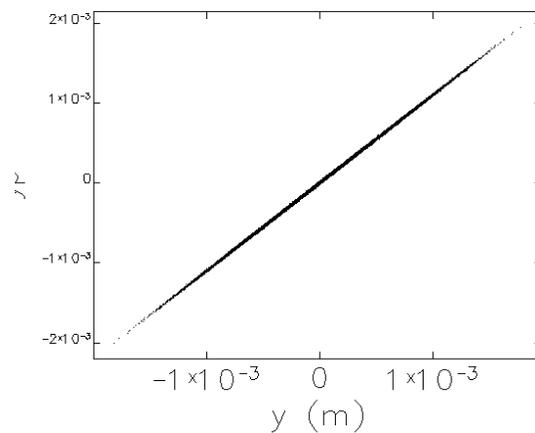
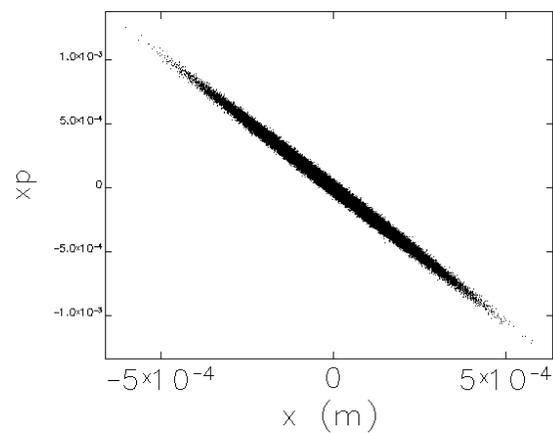
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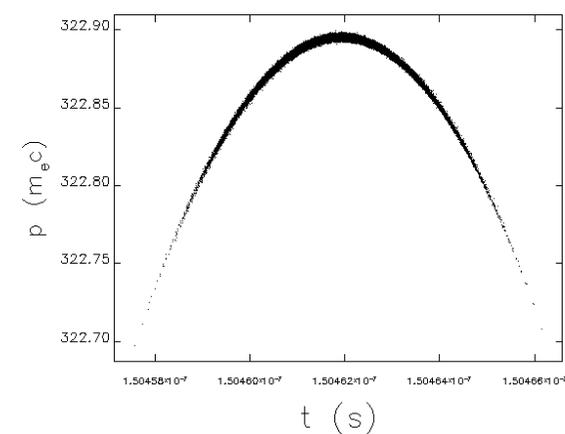
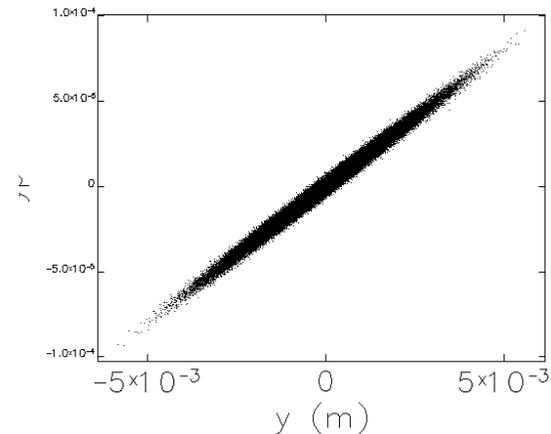
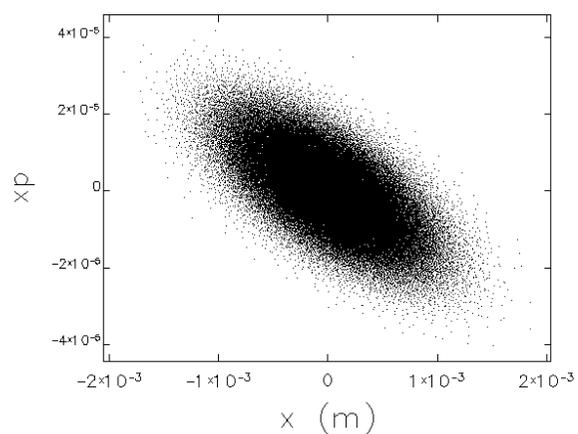
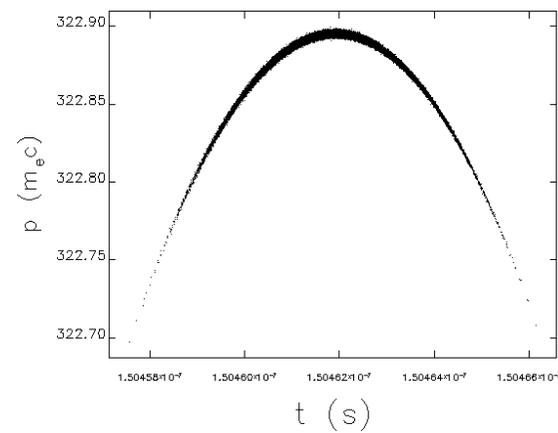
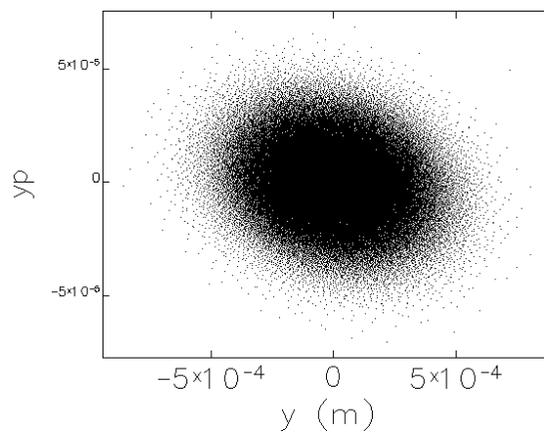
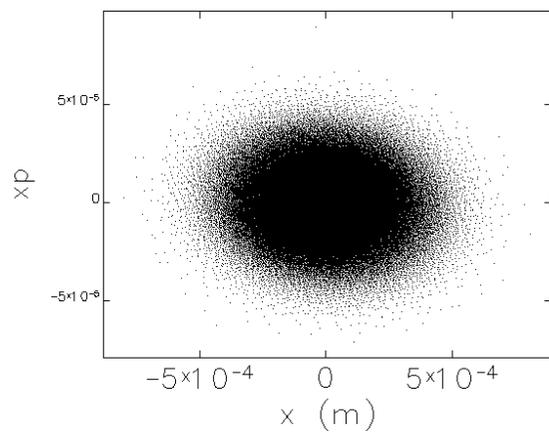
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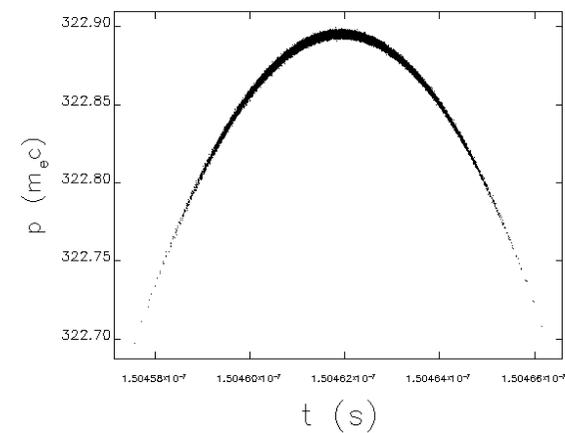
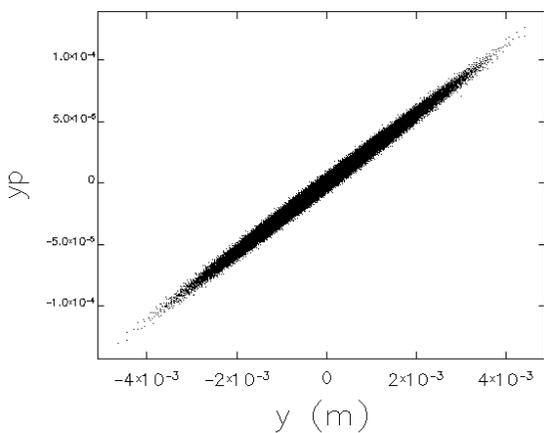
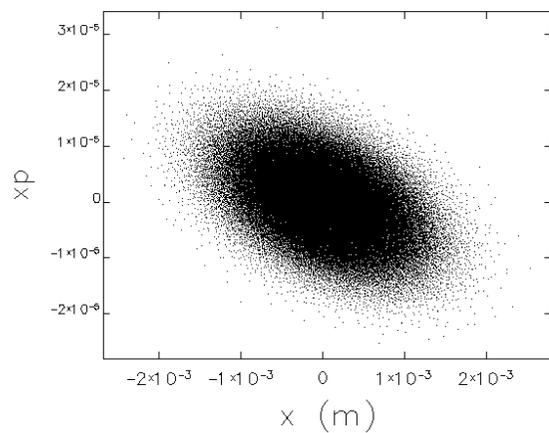
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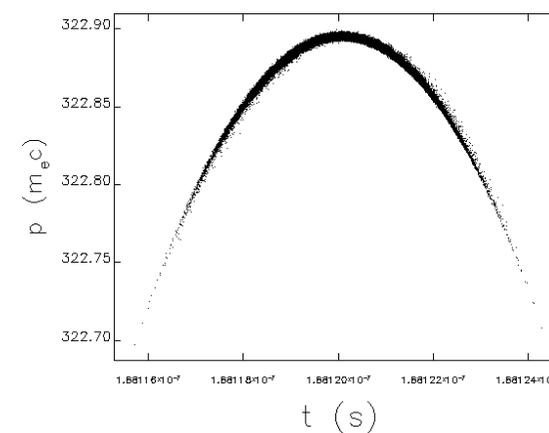
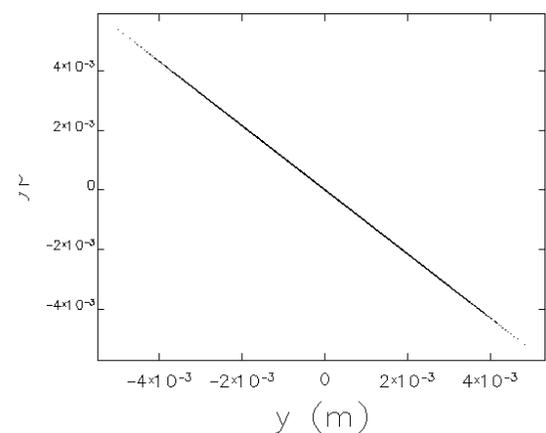
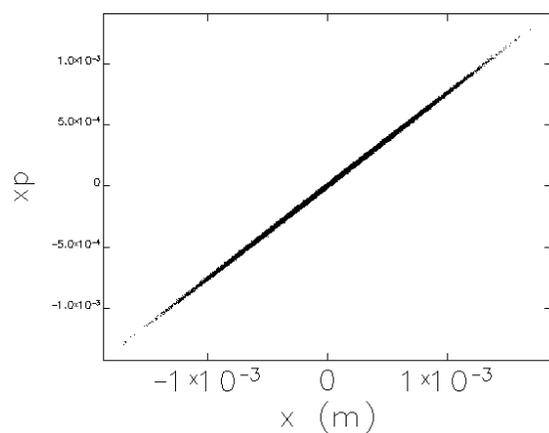
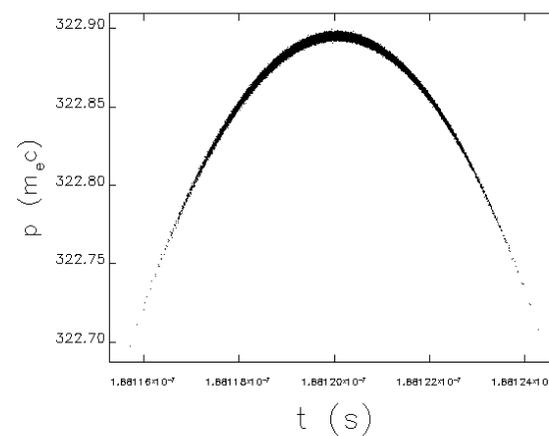
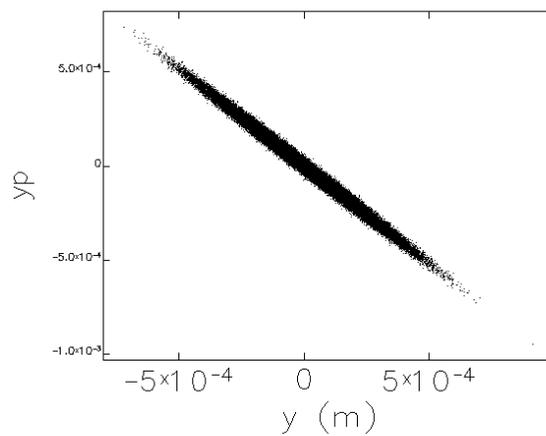
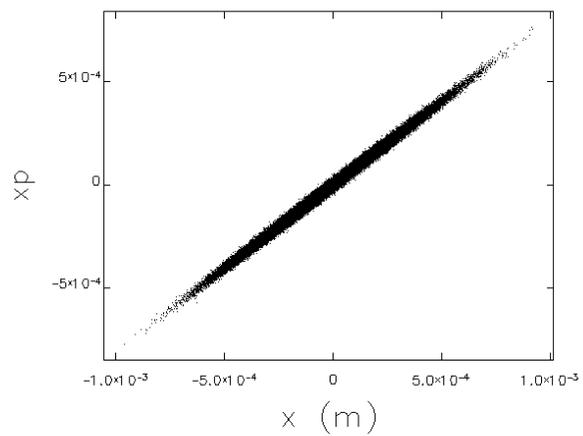
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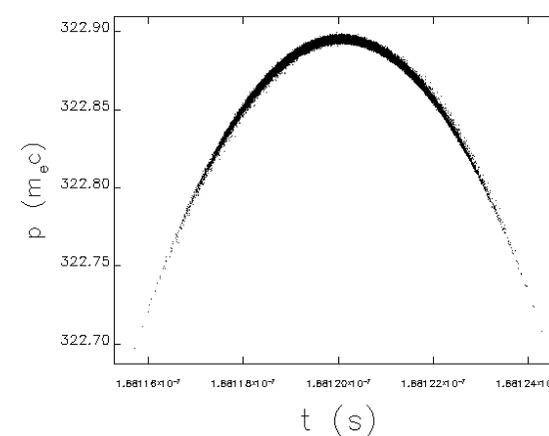
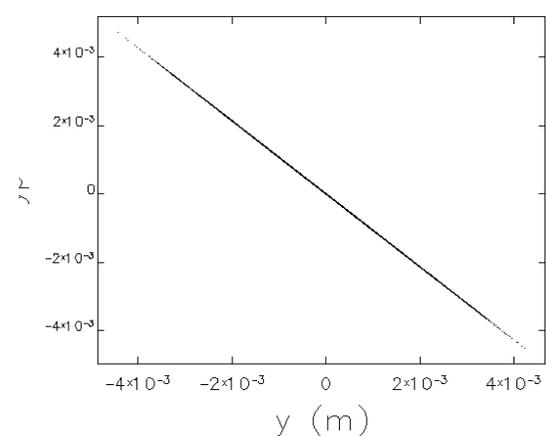
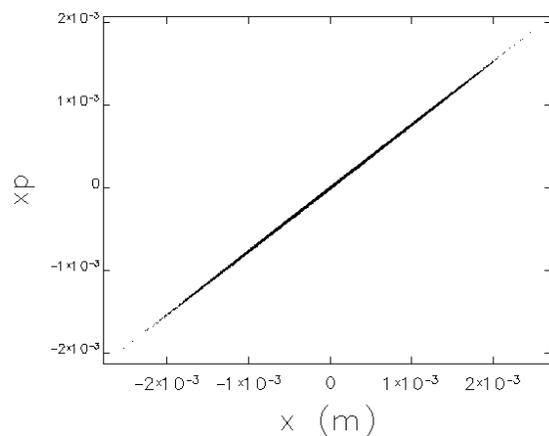
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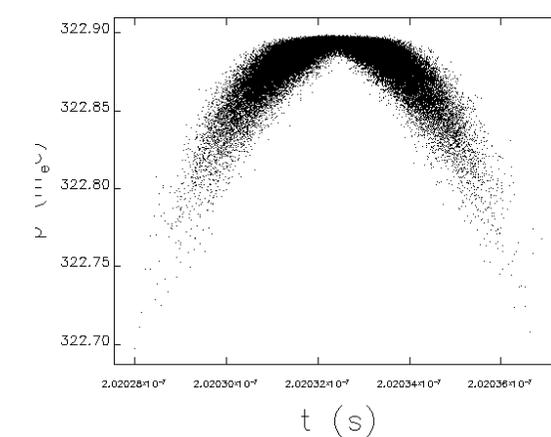
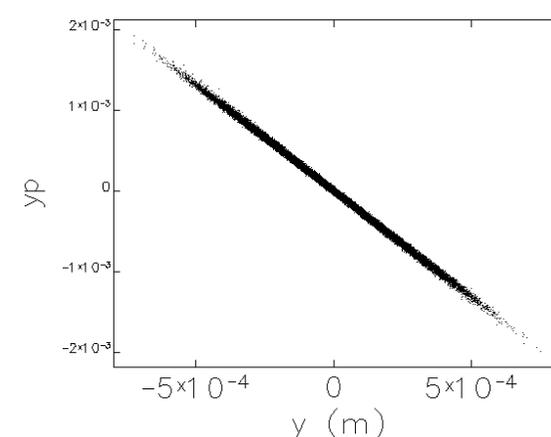
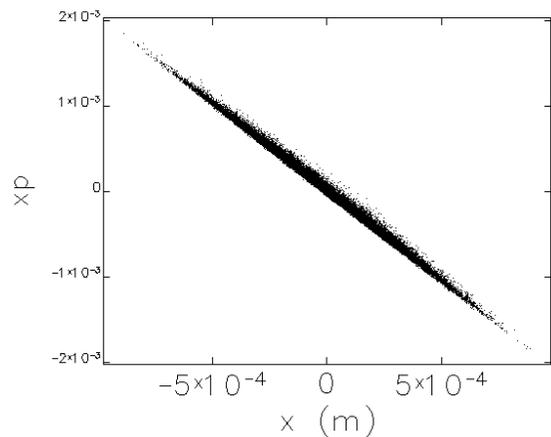
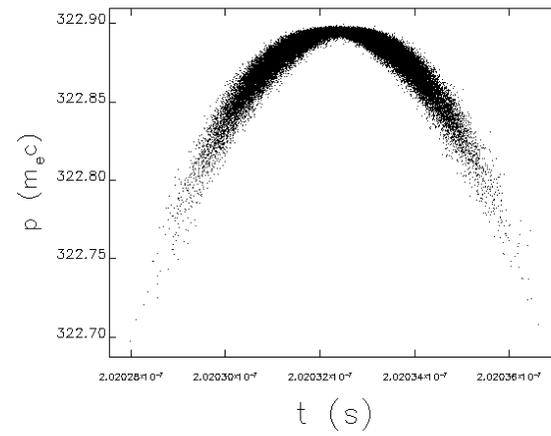
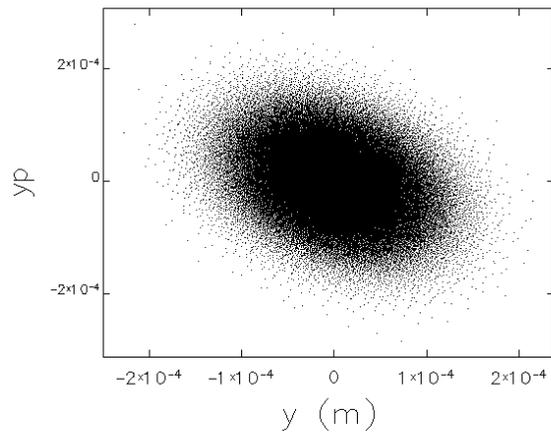
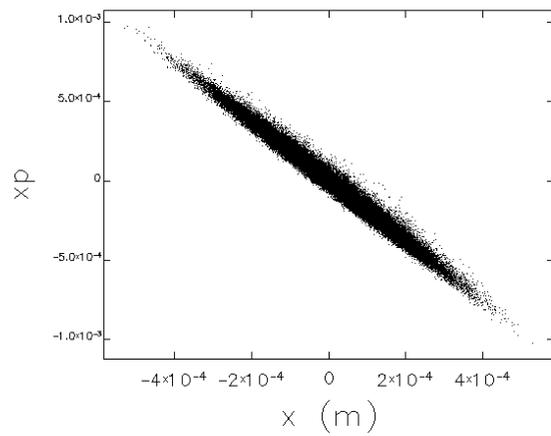
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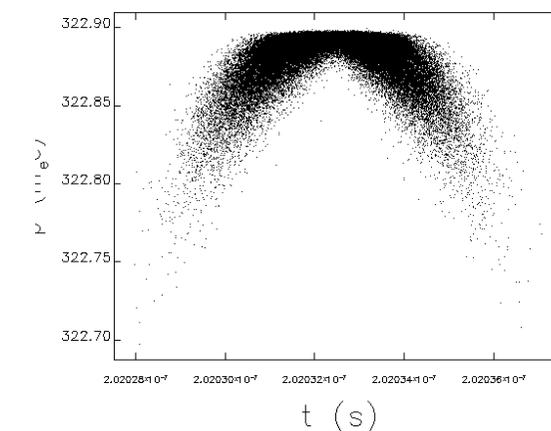
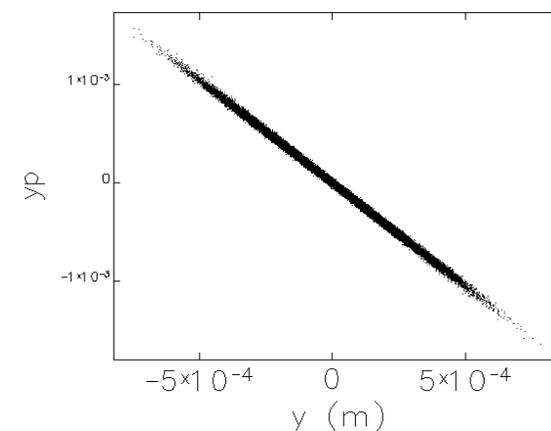
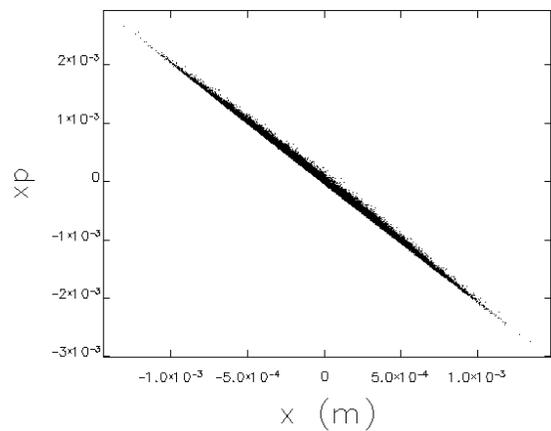
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watch-point phase space--input: SAD.ele lattice: SAD.Itc

watch-point phase space--input: SAD.ele lattice: SAD.Itc

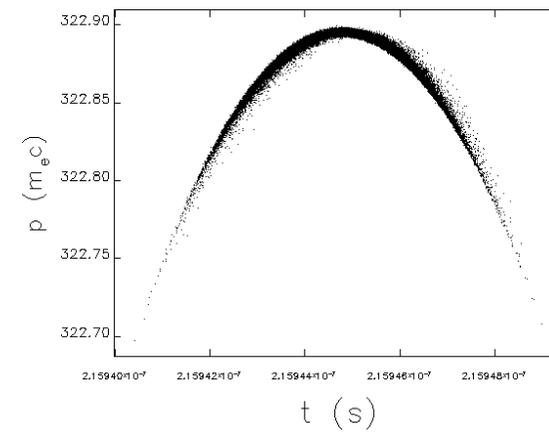
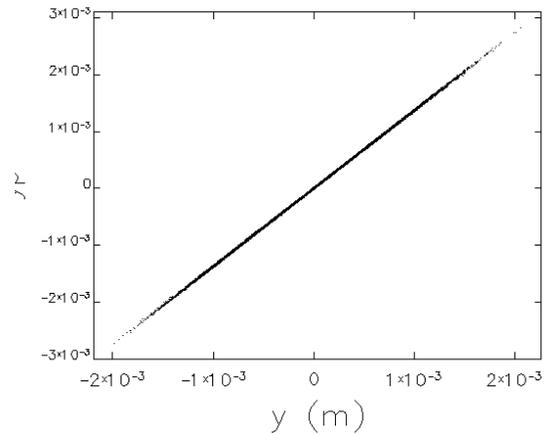
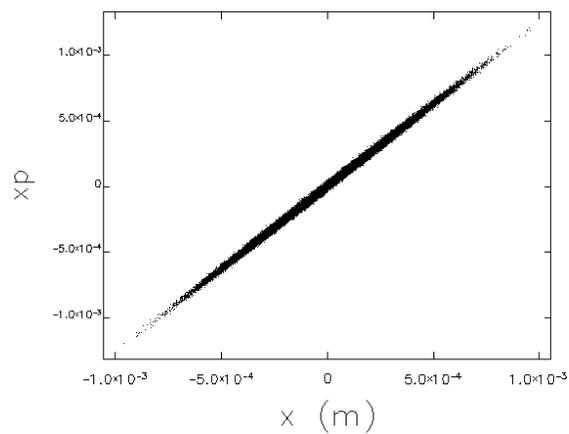
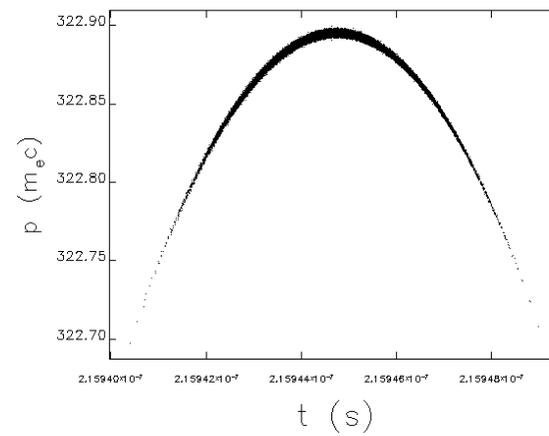
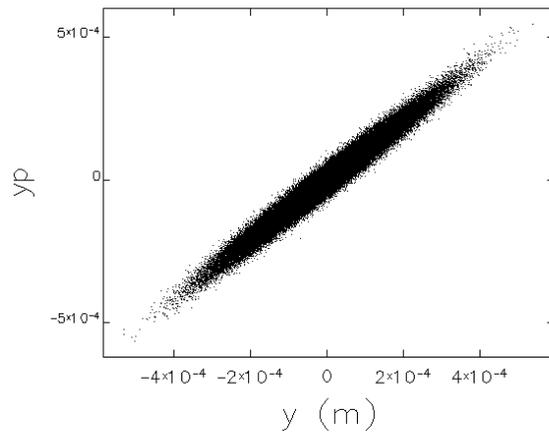
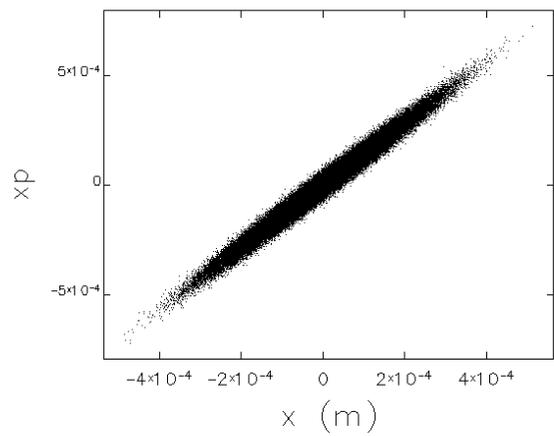
watch-point phase space--input: SAD.ele lattice: SAD.Itc



watch-point phase space--input: SAD.ele lattice: SAD.Itc

watch-point phase space--input: SAD.ele lattice: SAD.Itc

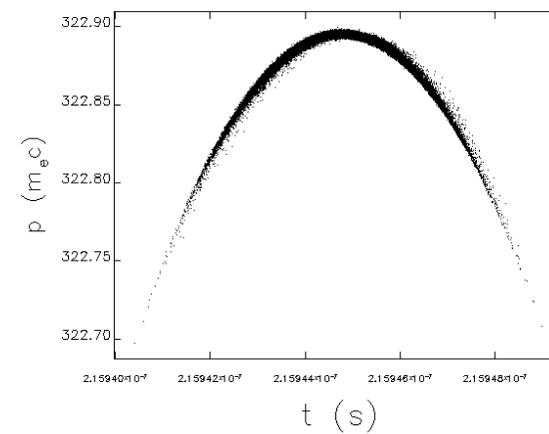
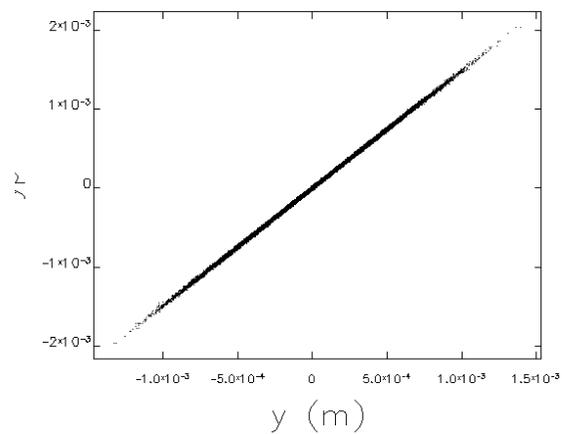
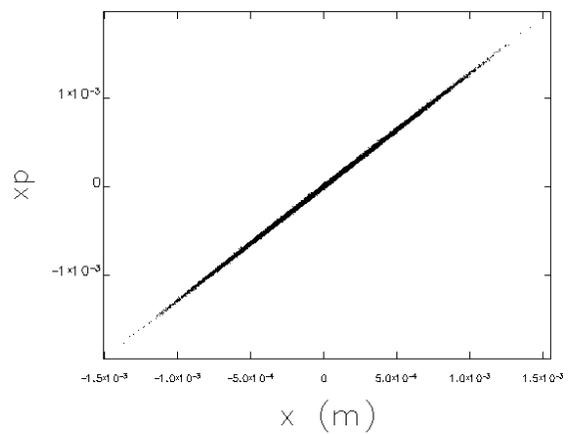
watch-point phase space--input: SAD.ele lattice: SAD.Itc



watch-point phase space--input: SAD.ele lattice: SAD.lte

watch-point phase space--input: SAD.ele lattice: SAD.lte

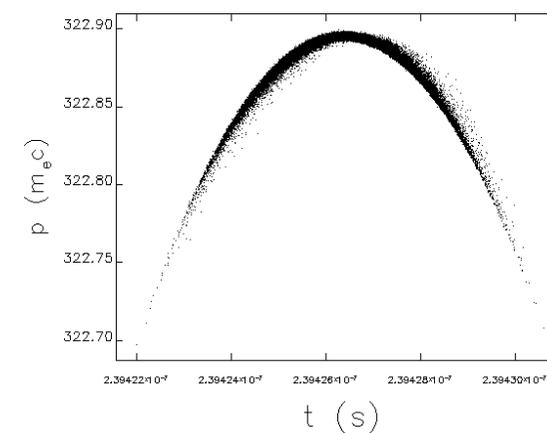
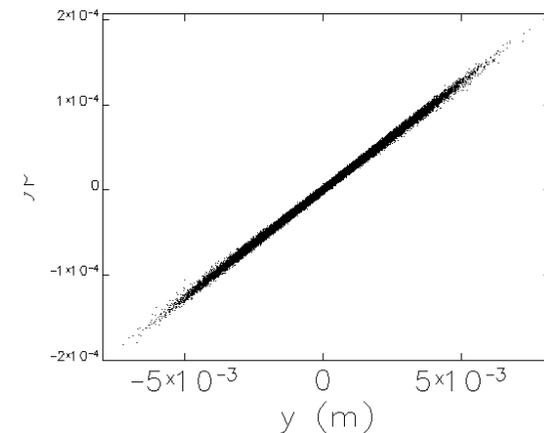
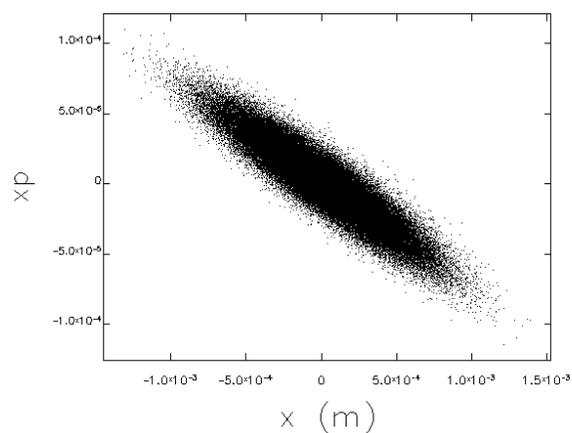
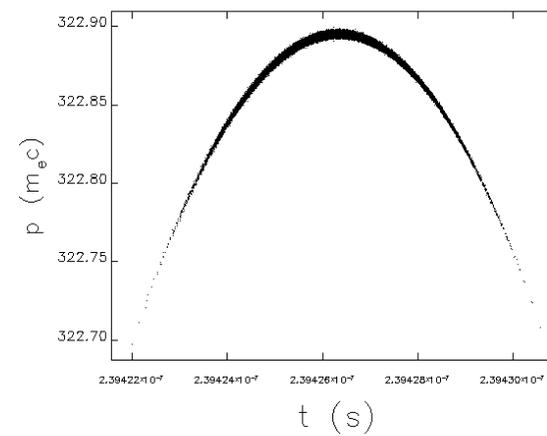
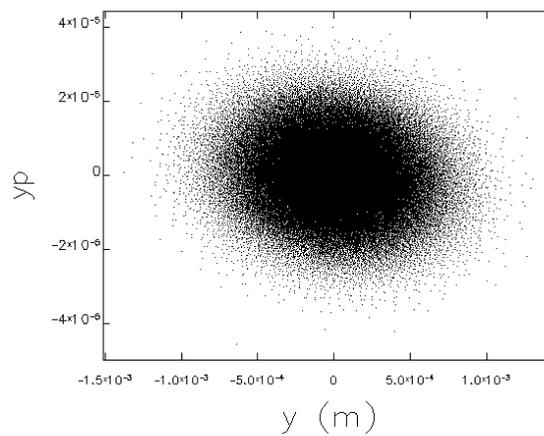
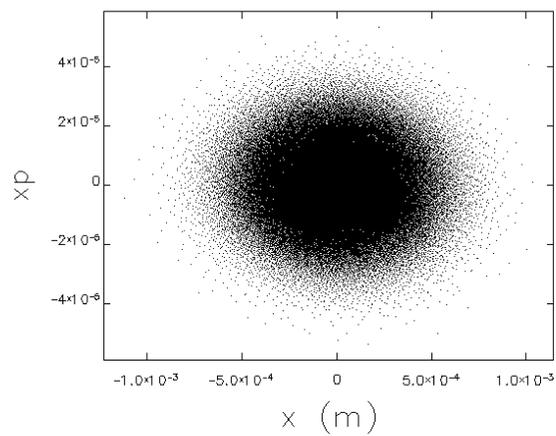
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watch-point phase space--input: SAD.ele lattice: SAD.lte

watch-point phase space--input: SAD.ele lattice: SAD.lte

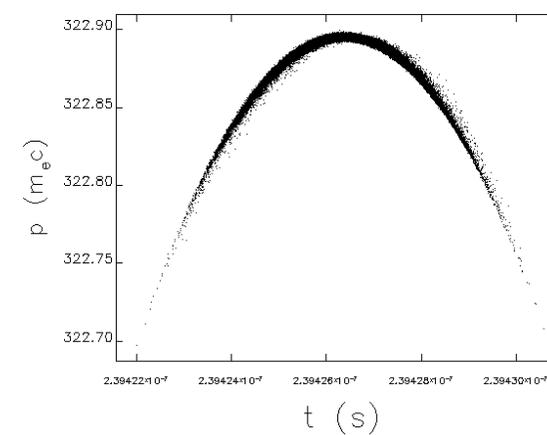
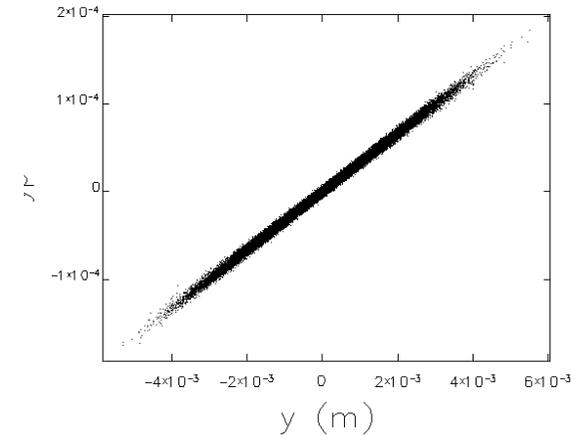
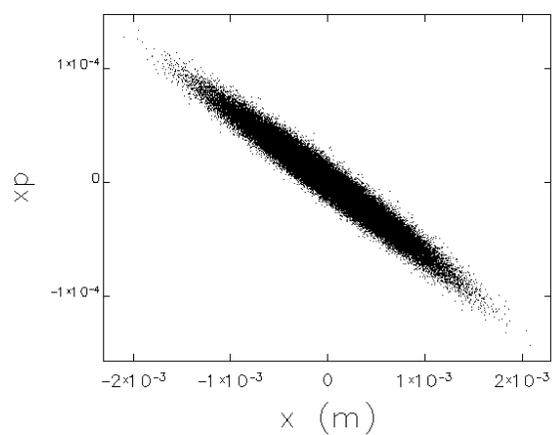
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watch-point phase space--input: SAD.ele lattice: SAD.lte

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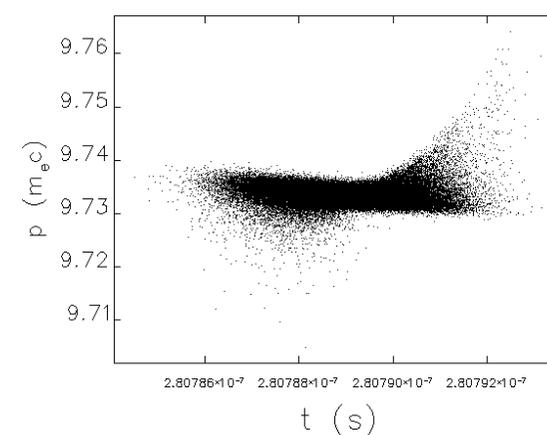
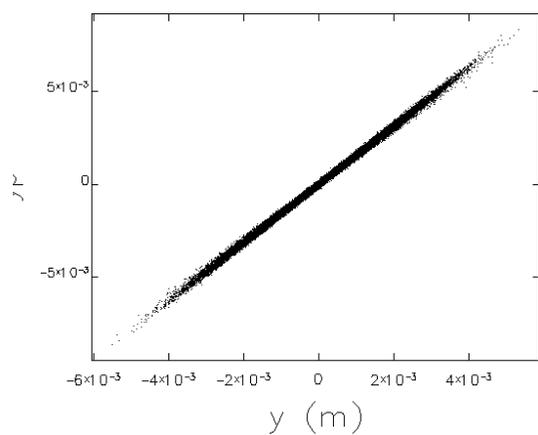
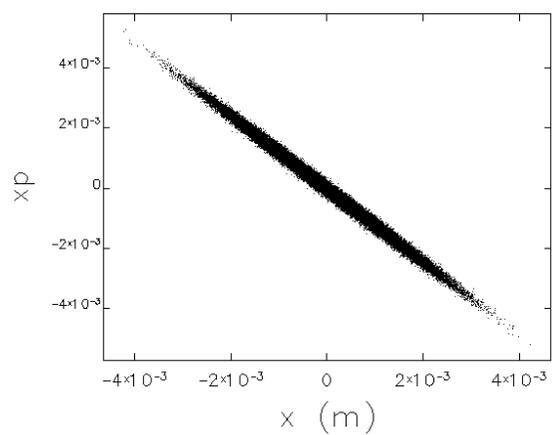
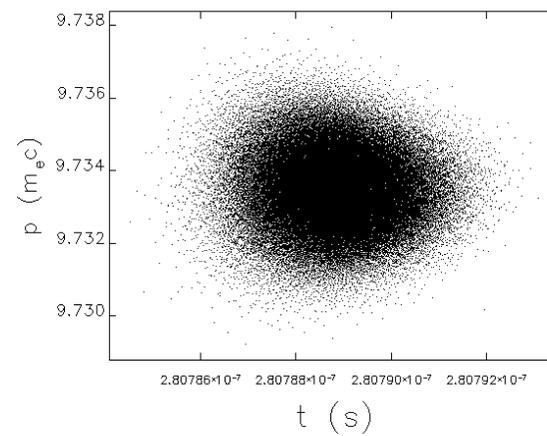
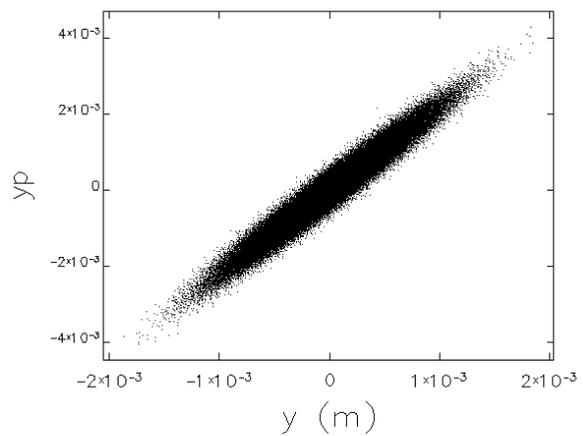
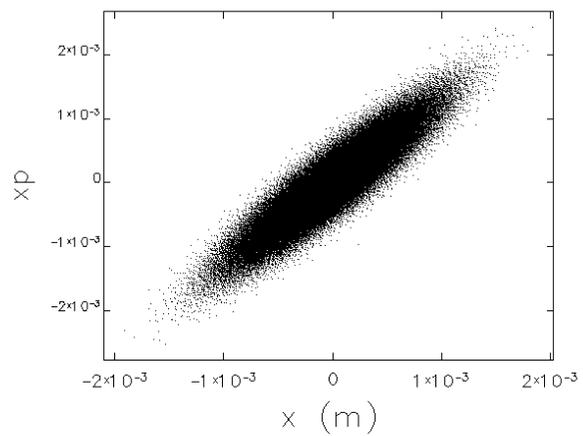
watch-point phase space--input: SAD.ele lattice: SAD.lte



watch-point phase space--input: SAD.ele lattice: SAD.lte

watch-point phase space--input: SAD.ele lattice: SAD.lte

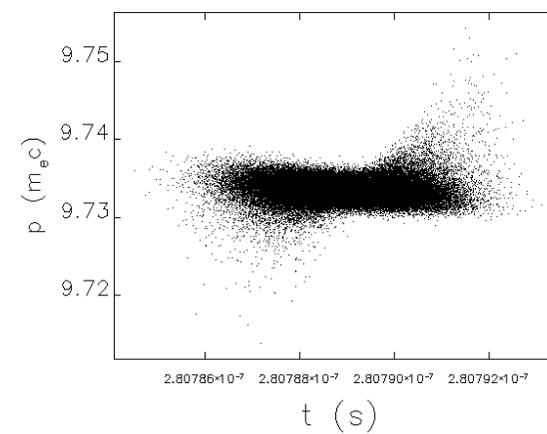
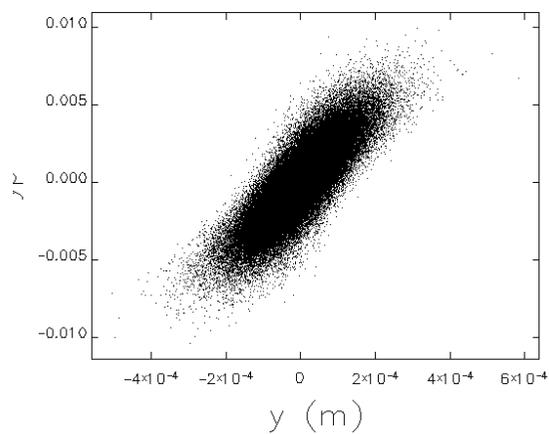
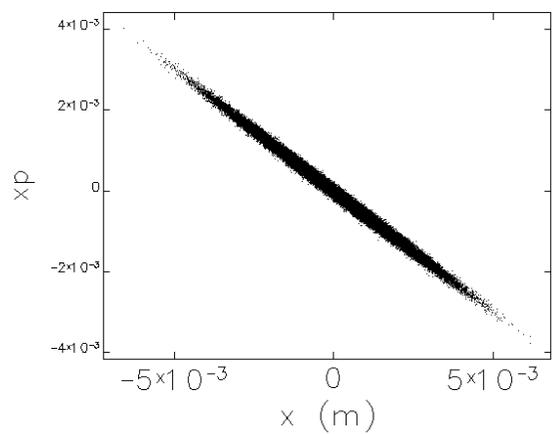
watch-point phase space--input: SAD.ele lattice: SAD.lte



watch-point phase space--input: SAD.ele lattice: SAD.lite

watch-point phase space--input: SAD.ele lattice: SAD.lite

watch-point phase space--input: SAD.ele lattice: SAD.lite



watch-point phase space--input: SAD.ele lattice: SAD.lite

watch-point phase space--input: SAD.ele lattice: SAD.lite

watch-point phase space--input: SAD.ele lattice: SAD.lite

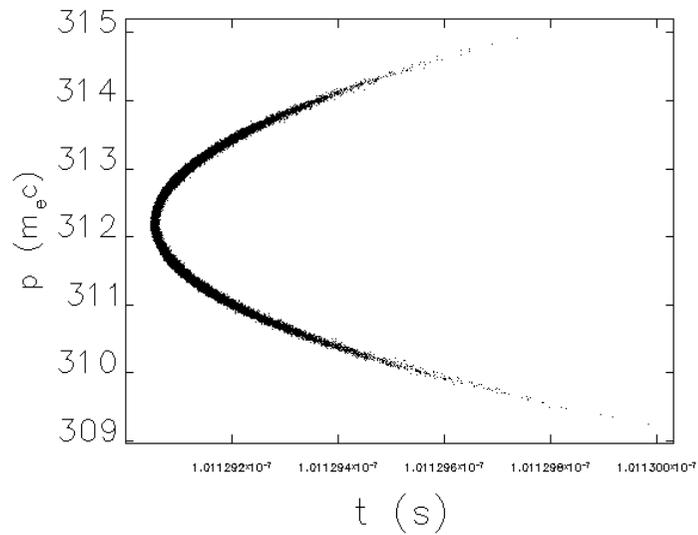
今回の加速空洞のまとめ

- ・エッジフォーカスの影響が大きい
- ・ボディーフォーカスだけならz方向への影響はない

六極の設定(CSRなし)

- ・Elegantの変数Stを使ってoptimize

六極のoptimize前

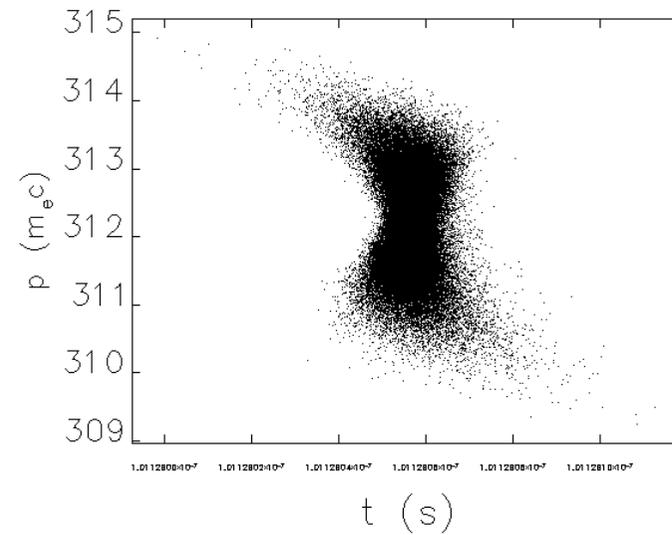


watch-point phase space--input: SAD.ele lattice: SAD.lite

約200fs



六極のoptimize後



watch-point phase space--input: SAD.ele lattice: SAD.lite

約20fs

