

Tracking study of muon acceleration with FFAGs (follow-up 2), revised

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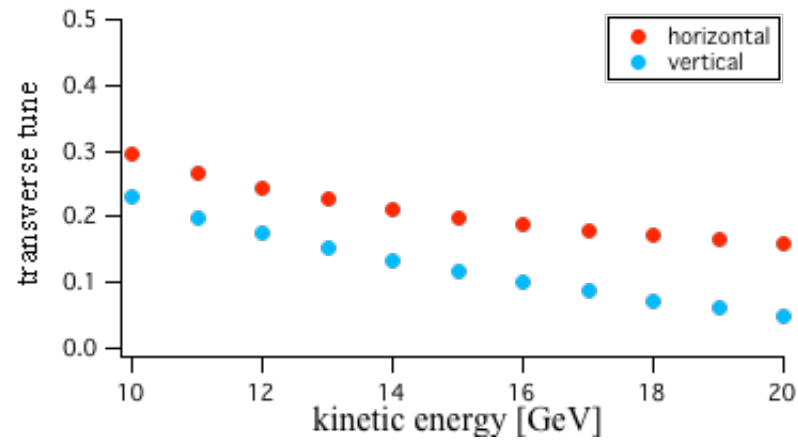
<http://hadron.kek.jp/~machida/doc/nufact/>

ffag/machida_20051215b.ppt & pdf

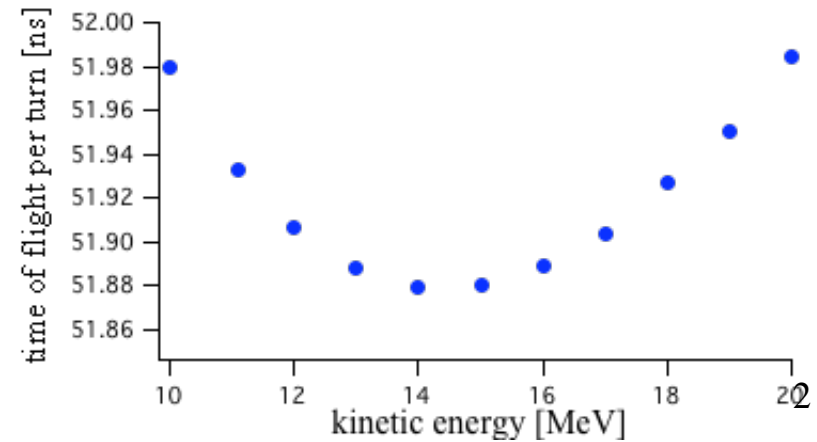
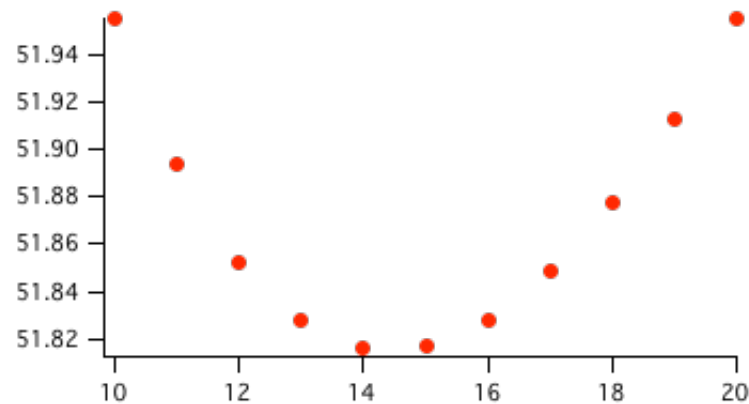
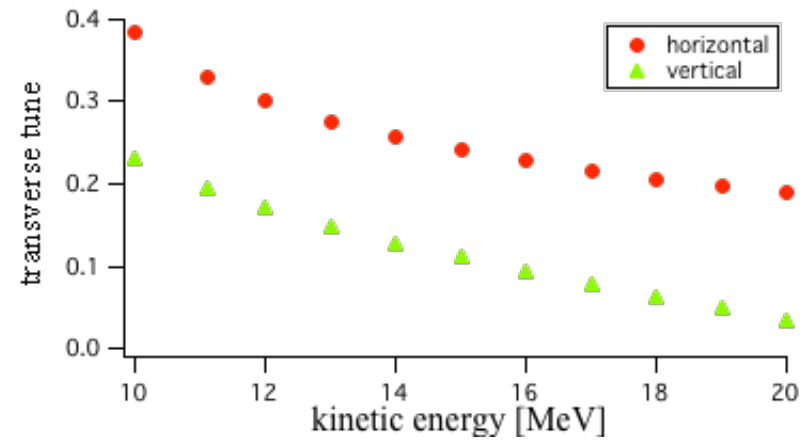
Lattice with smaller $d\nu/dE$

Berg made a lattice with smaller $d\nu/dE$

new lattice



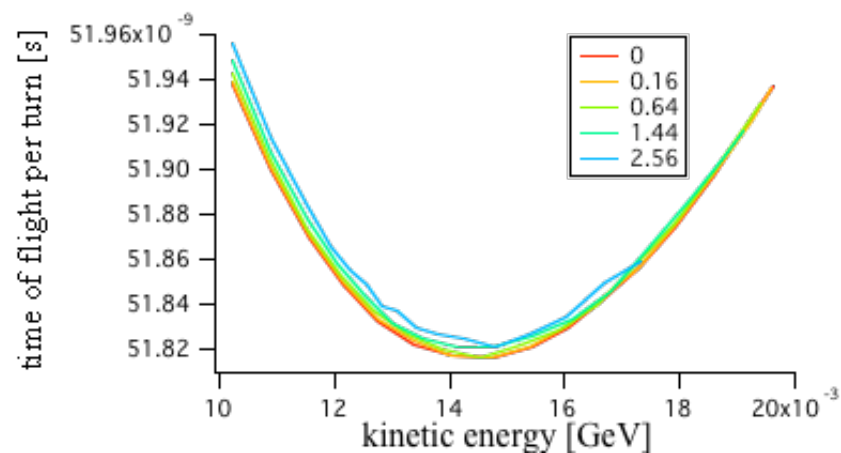
old lattice



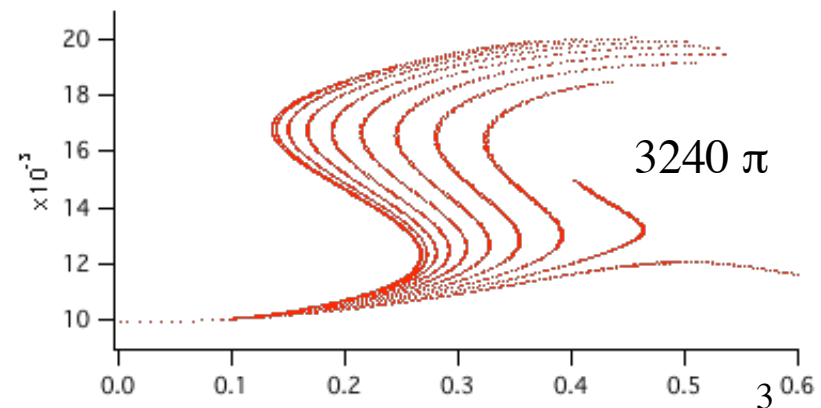
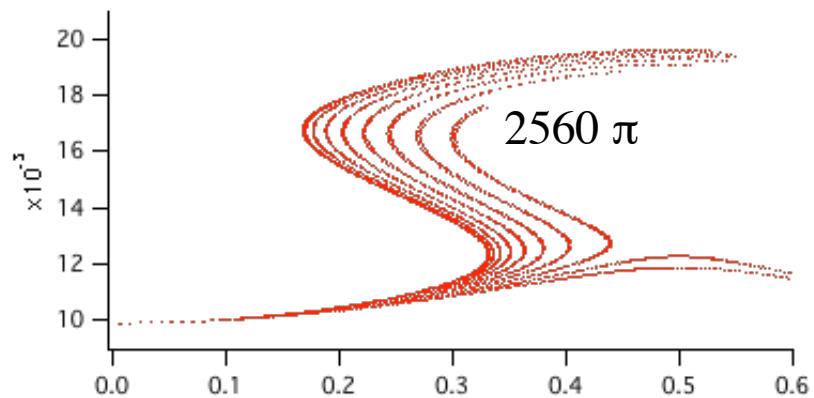
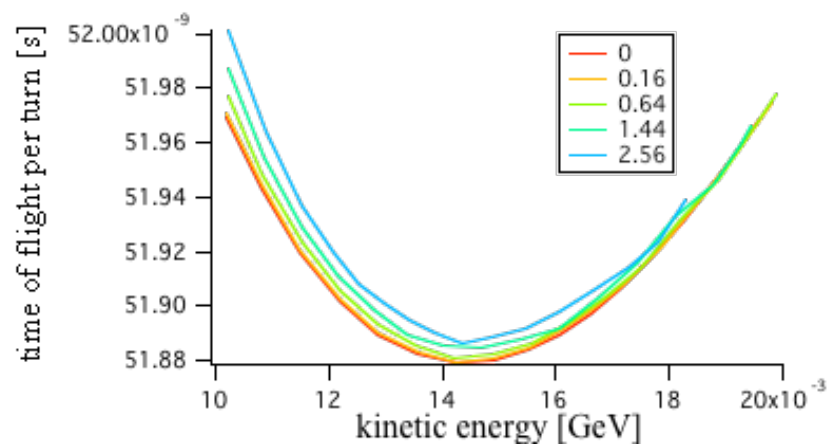
Lattice with smaller $d\nu/dE$

(continued)

new lattice



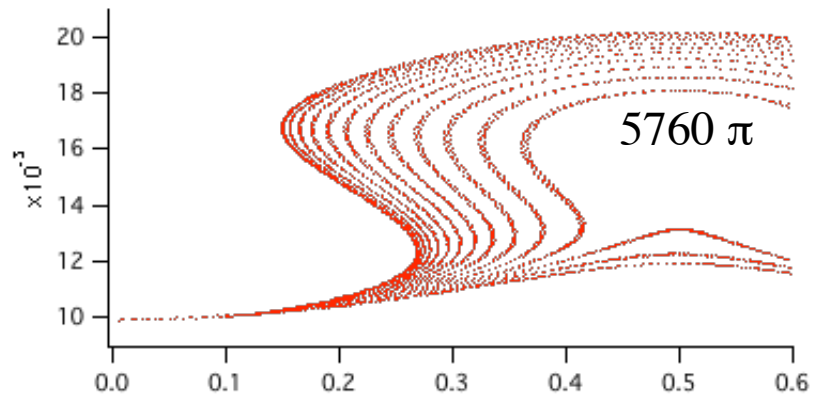
old lattice



Lattice with smaller $d\nu/dE$

(continued)

new lattice with same $a(=1/12)$



Summary

- Lattice with smaller dv/dE gives smaller ToF difference as a function of transverse amplitude.
- Trajectories in longitudinal phase space becomes narrower, but transverse acceptance does not change.
- If we keep the same a parameter, (40% more RF voltage), acceptance is almost doubled.