

# Beam injection scheme to KEKB rings

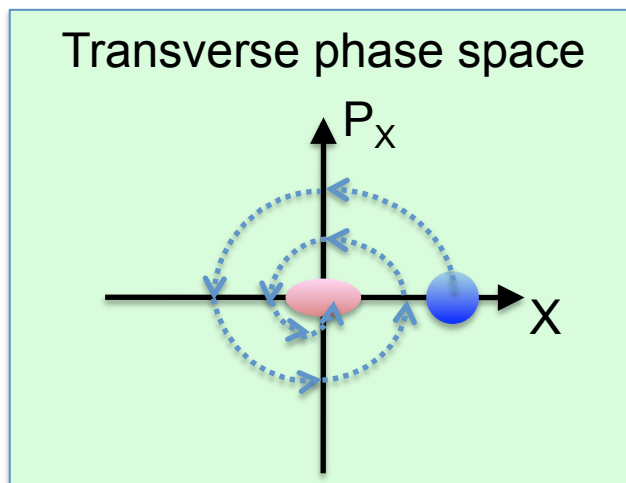
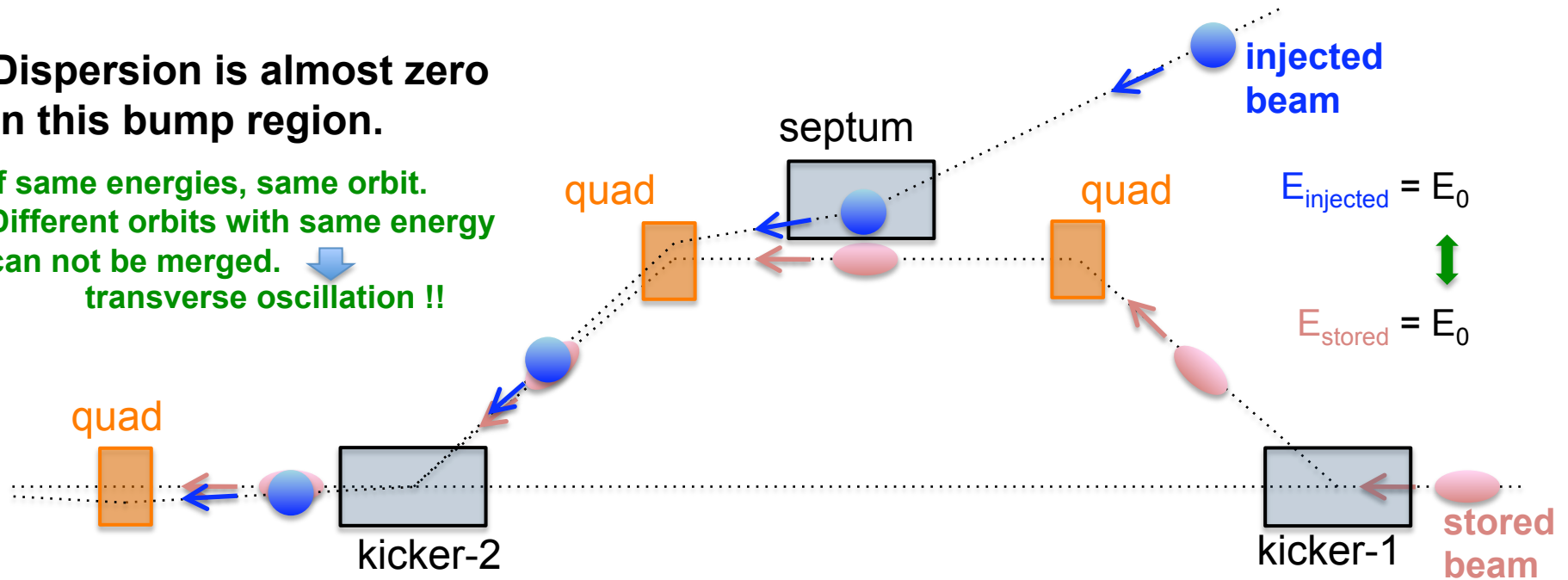
KEK

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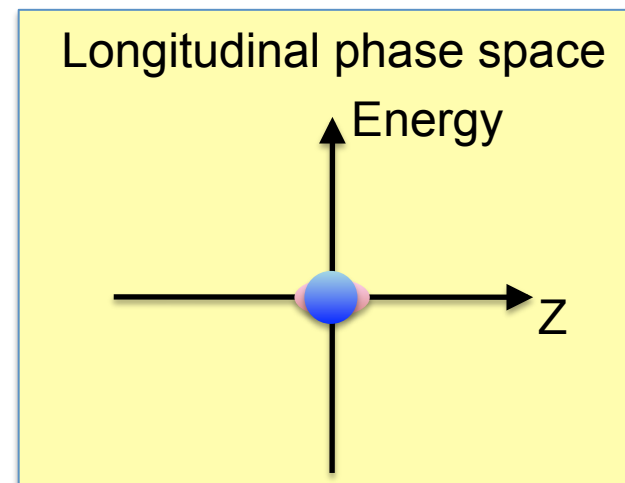
# present KEKB injection scheme

Dispersion is almost zero in this bump region.

If same energies, same orbit.  
 Different orbits with same energy  
 can not be merged.  $\downarrow$   
 transverse oscillation !!



transverse oscillation is finally damped.



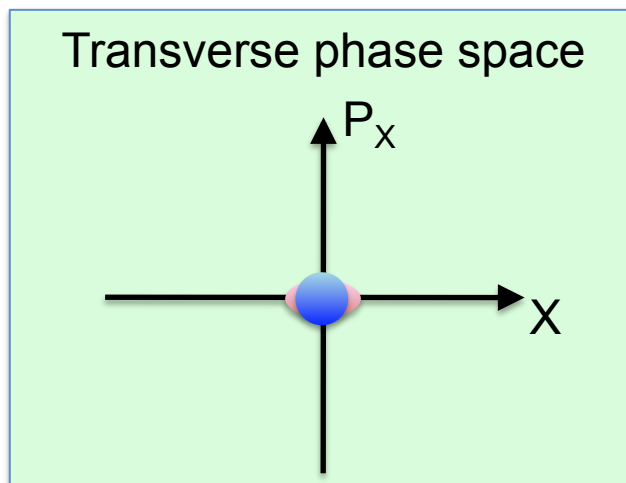
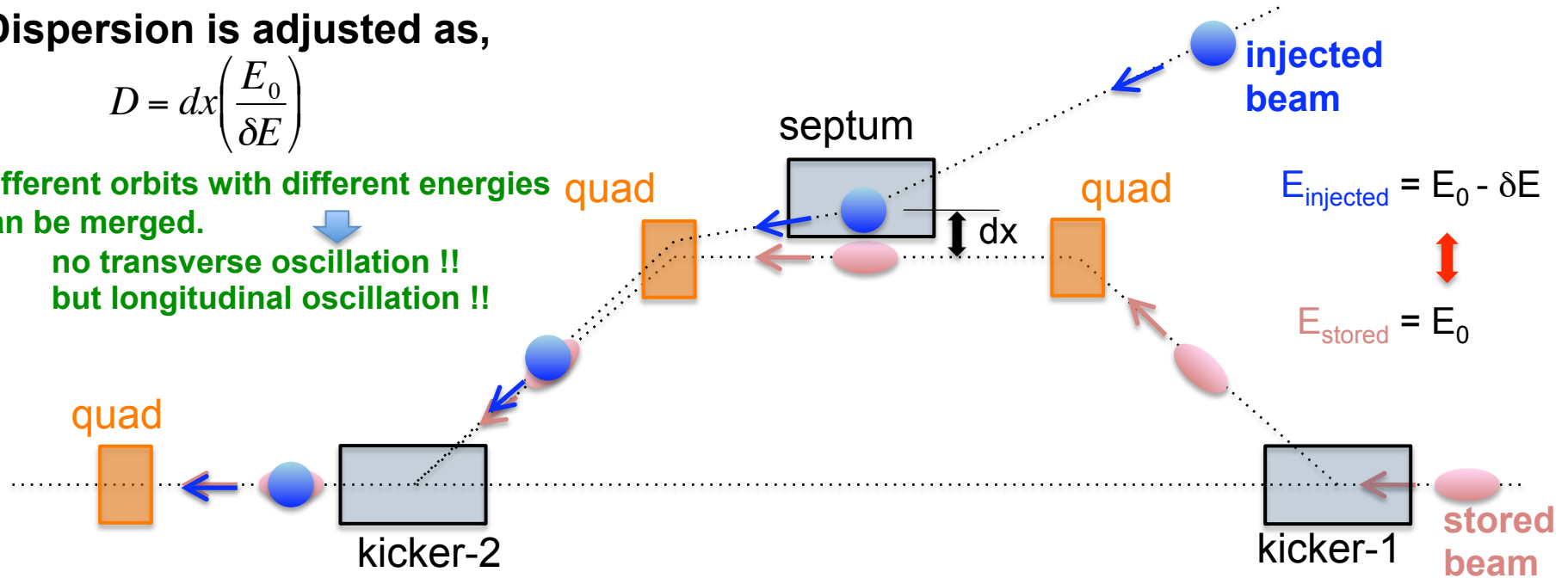
no longitudinal oscillation !

# synchrotron injection scheme

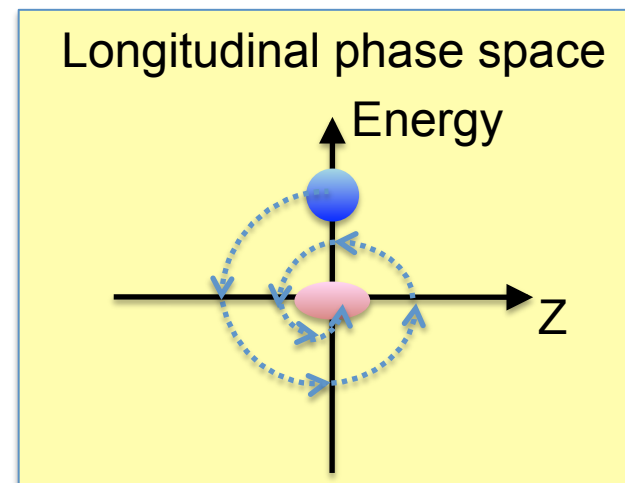
Dispersion is adjusted as,

$$D = dx \left( \frac{E_0}{\delta E} \right)$$

Different orbits with different energies can be merged.  
 no transverse oscillation !!  
 but longitudinal oscillation !!



no transverse oscillation !!



longitudinal oscillation is finally damped.