

CERN, 25th August 2008

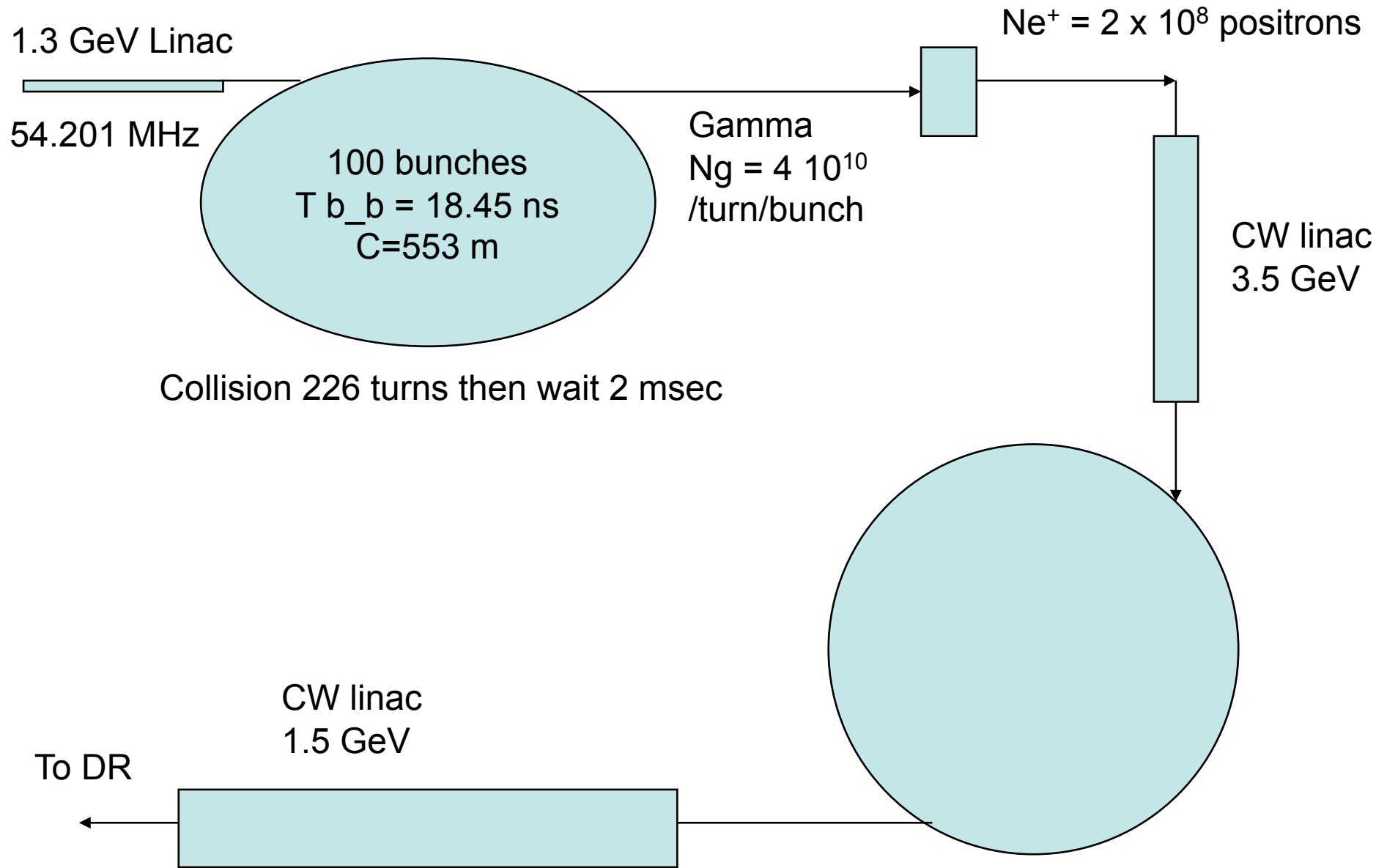
Some questions and comments from

A. Variola scheme and from

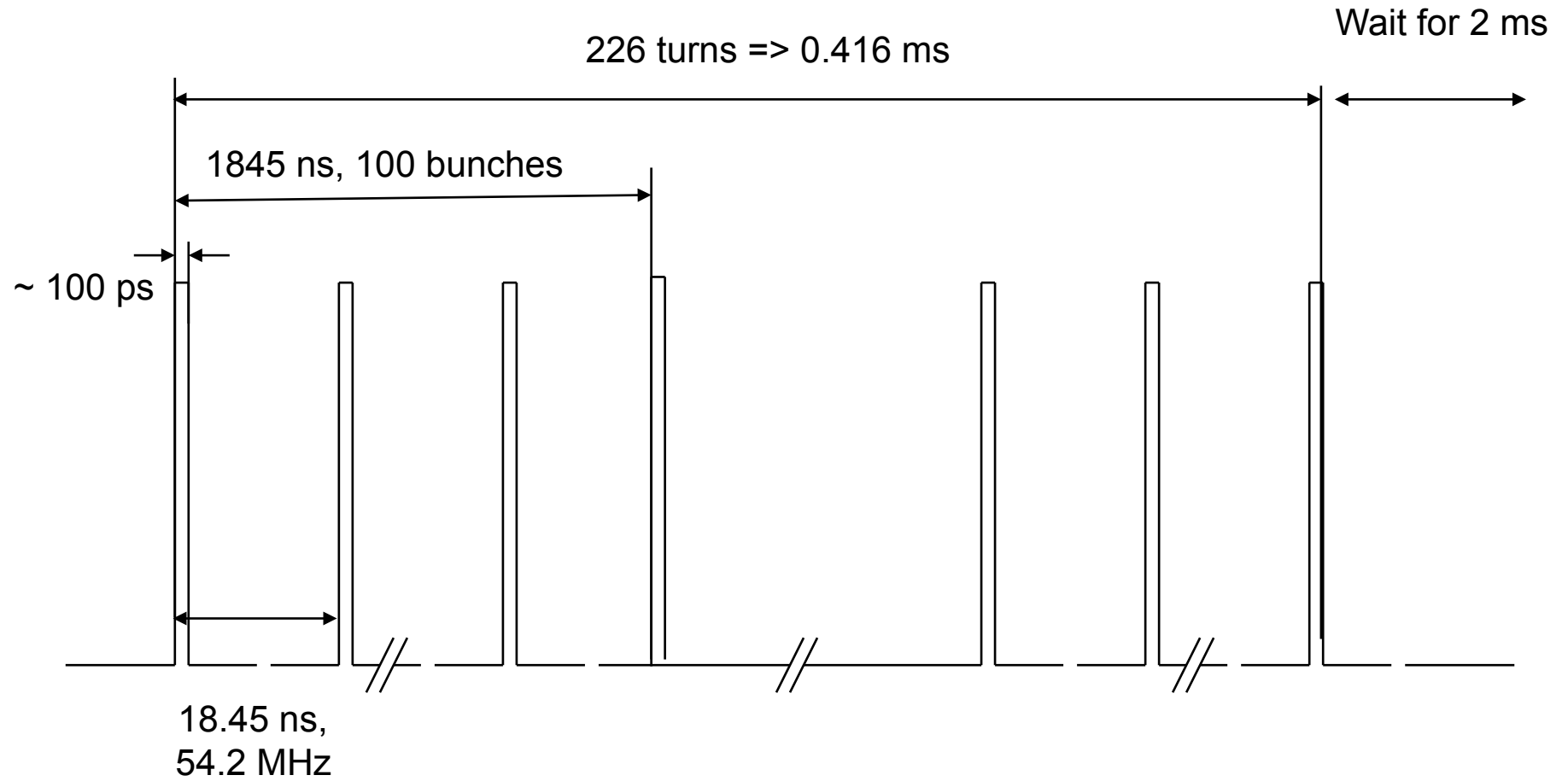
T. Omori explanations

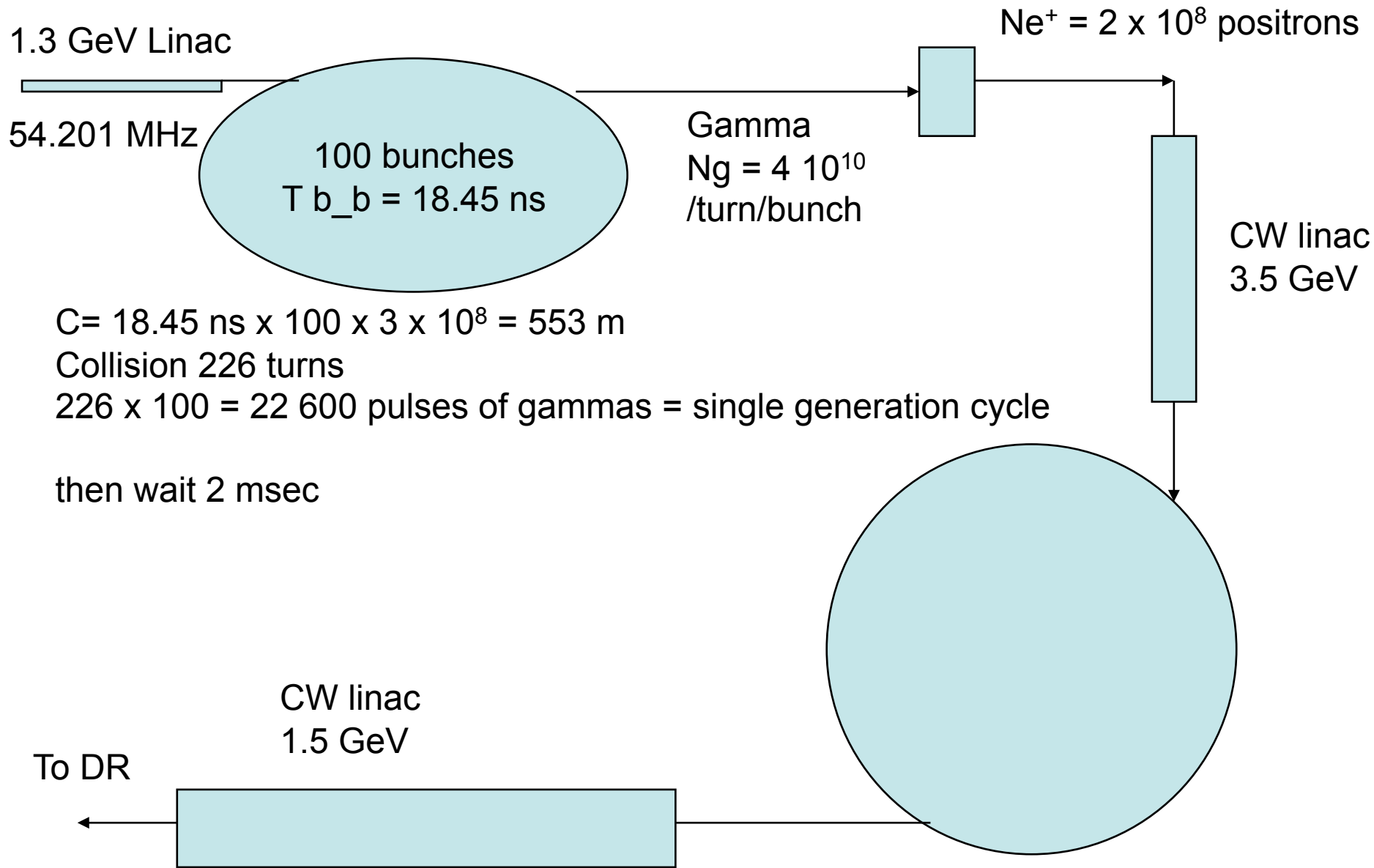
regarding the e^+ production between the Compton ring,
the Pre-Damping Ring and the Main Damping Ring
in order to reach the ILC nominal intensity

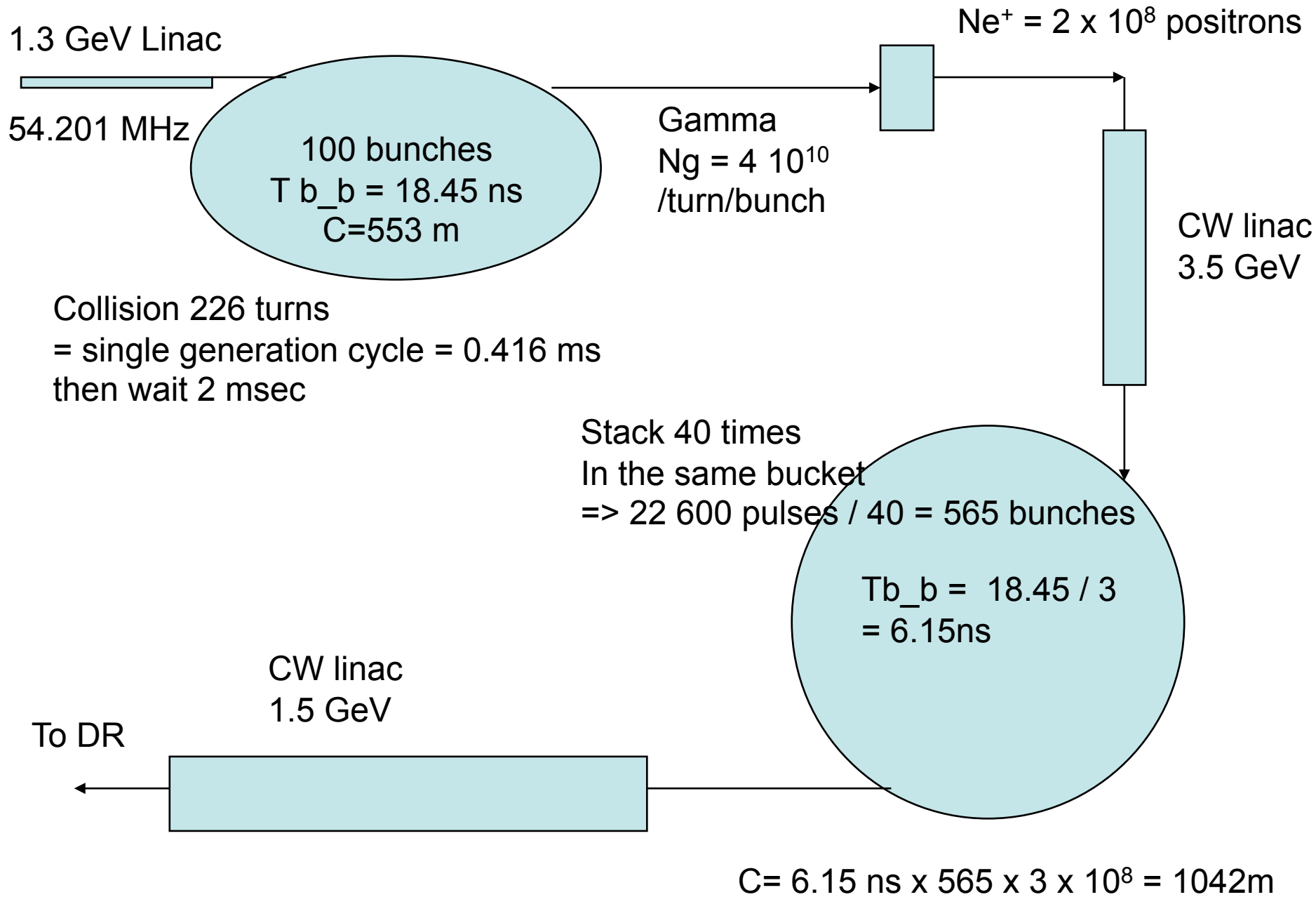
L. Rinolfi



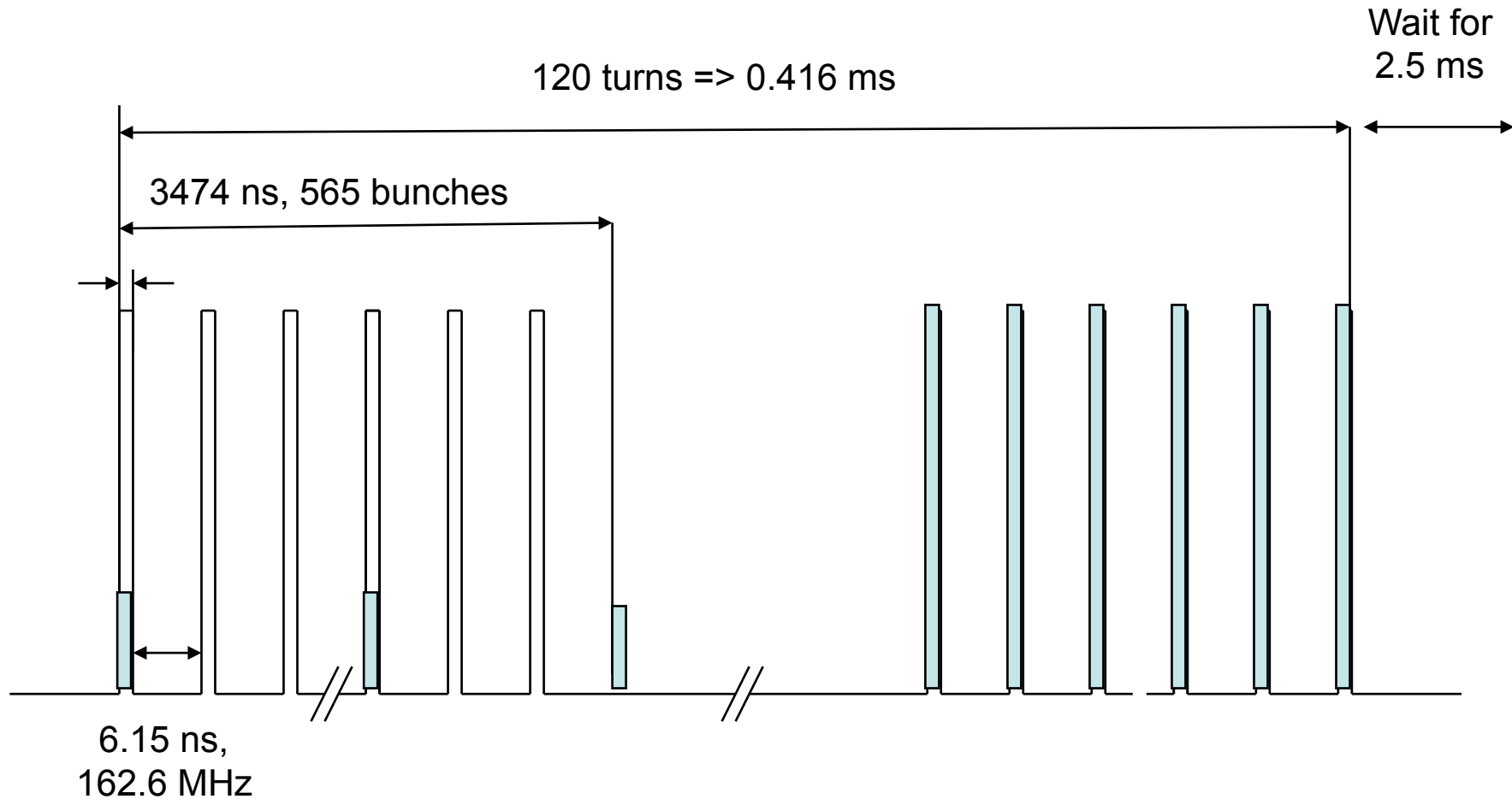
In the Compton Ring







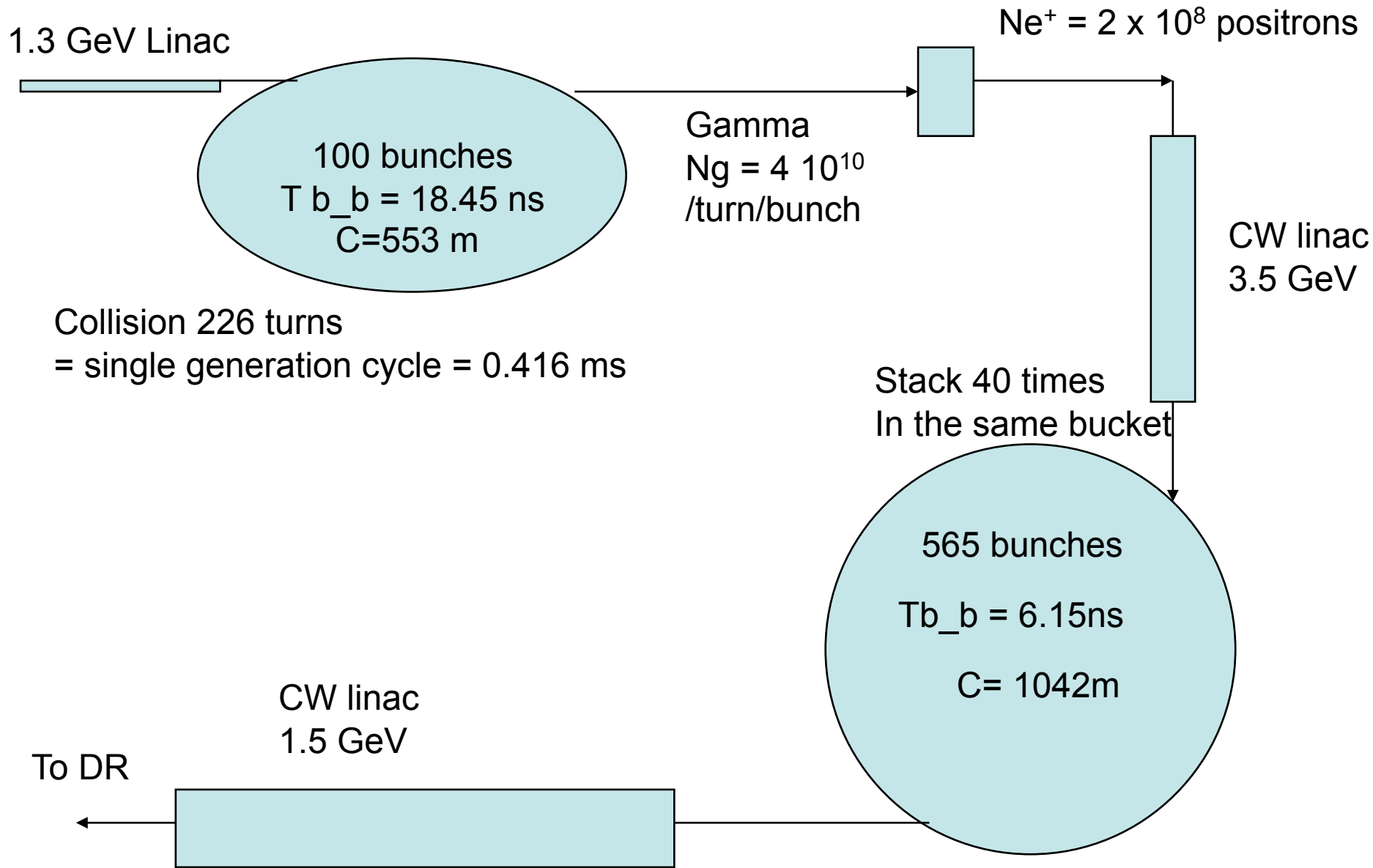
In the Pre Damping Ring



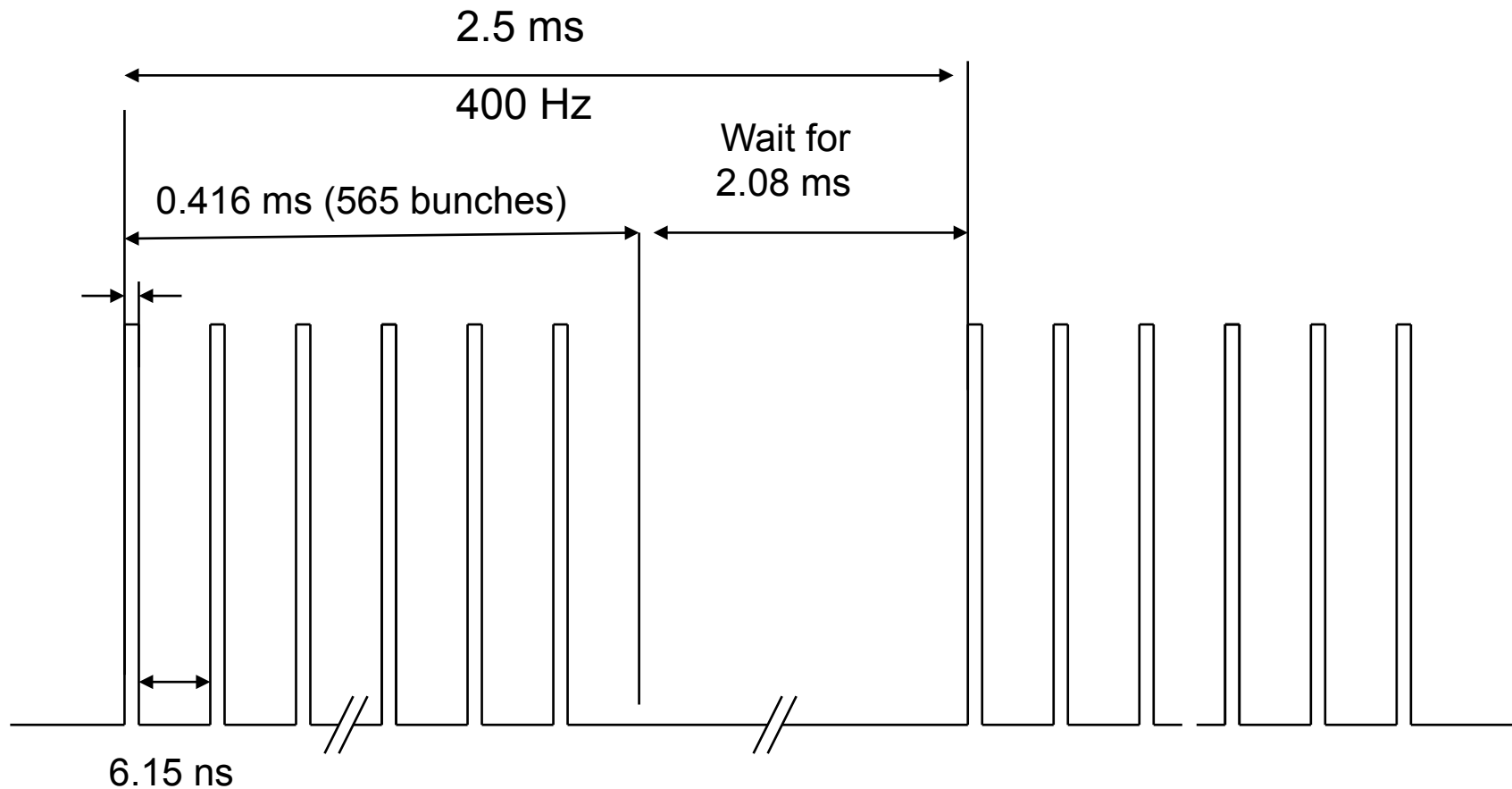
Stacking in the same bucket occurred every third turn

Time between stacking = $T_{b-s} = 3.474 \text{ microseconds} \times 3 = 10.424 \text{ microseconds}$

If $T_{cool} = 2 \text{ ms} \Rightarrow T_{b-s} \sim T_{cool} / 200$



In the CW linac



$565 \times 5 \text{ shots} = 2825 \text{ bunches in the Main DR}$

$2.5 \text{ ms} \times 5 \text{ shots} = 12.5 \text{ ms}$

If 40 shots are sent $\Rightarrow 2.5 \text{ ms} \times 40 = 100 \text{ ms}$ for stacking in the MDR

$40 / 5 = 8$ bunches are stacked in the same bucket of the MDR

Questions:

1) Why 18.45 ns ?

2) 22 600 pulses of gammas => 22 600 e+ bunches of 2×10^8 / bunch ?

3) In the RDR, 2625 bunches. Here 2825 ?