

# Some longitudinal LhARA parameters

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# Summary of parameters

- Total proton bunch length in in-vitro station at Stage I **5.3ns**
- RF voltage in FFA 4kV
- Bunching factor at injection to FFA 0.023
- Total proton bunch length at injection to FFA 8.1ns
- Total relative energy spread at injection to FFA  $\pm 2\%$
- Incoherent space charge tune shift at injection to FFA  $\sim -0.8$
- Beam intensity for proton beam  **$\sim 10^9$**
- Proton bunch length at extraction from FFA **41.5ns**
- Beam intensity for carbon beam  **$\sim 10^9 / 12$**
- Carbon bunch length at extraction from FFA **75.2ns**