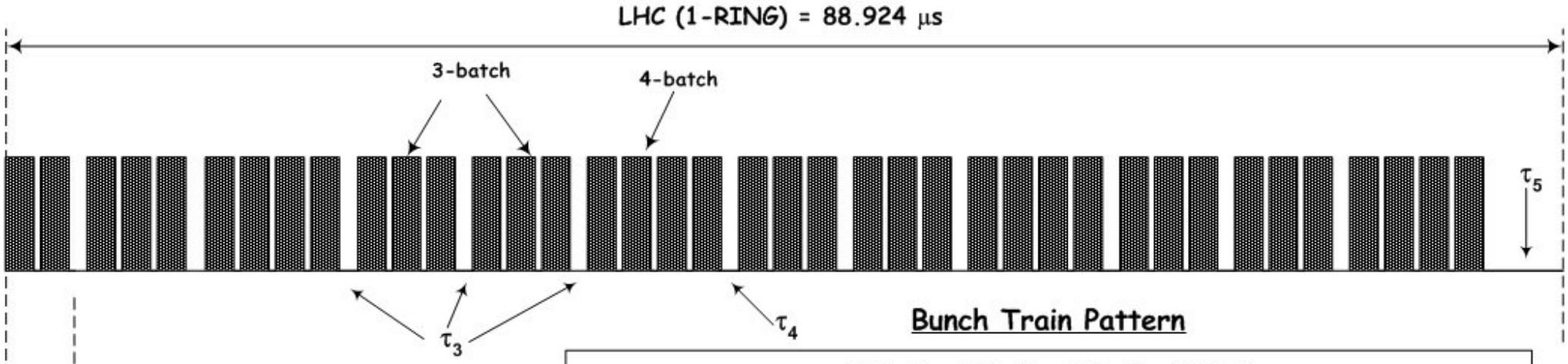
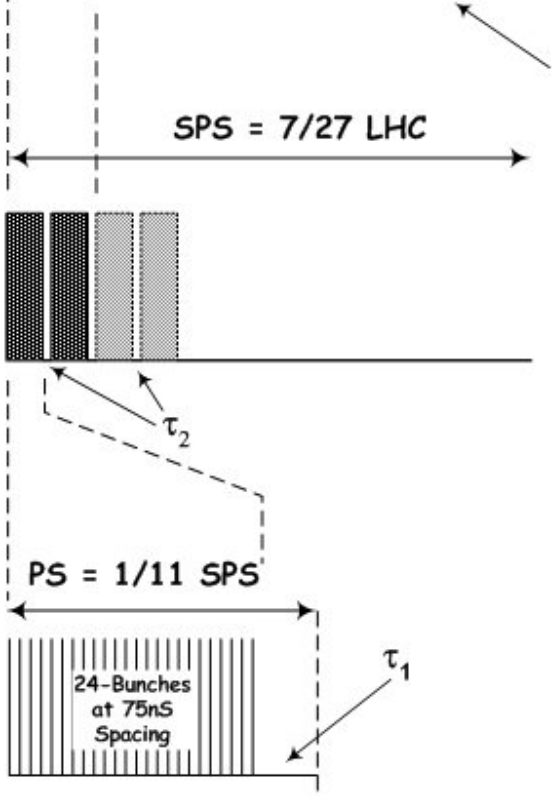
Nominal Proton Bunch Pattern in the LHC for 75nS Spacing





Bunch Train Pattern

234 334 334 334

Filling Scheme

1188 =
2x (24b + 2e) + 12e + 3x (24b + 2e) + 12e + 4x (24b + 2e) + 13e
+ 3x { 2x [3x (24b + 2e) + 12e] + 4x (24b + 2e) + 13e } + 26e
(936 bunches per ring)

Beam Gaps

τ_1 = 4 bunch gap in the PS (375ns)
τ_2 = 2 missing bunches (SPS Injection Kicker Rise time = 225ns).
τ_3 = 14 missing bunches (LHC Injection Kicker Rise Time = 1.125μs).
τ_4 = 15 missing bunches (" 1.2μs).
τ_5 = 41 missing bunches (LHC Beam Dump Kicker Rise Time =3.15μs).

P. Collier 02/10/2003