



WP8 Summary and planned activities

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Two bunches problem



- Two bunches arrive in the TDS at the same phase, so they will be deflected by the same amount
- In this case they are totally indistinguishable
- There is no guarantee that the two are equal, some differences in the laser, in the RF, some wake etc.
- The only way is to use an intensified camera with a MCP (Multi-Channel-Plate).
- A very fast MCP is sold out with 550 ps FWHM pulse length. No information about jitter so far. A discussion with a famous company has started today.

n (C-band)	Δt	Δs	n (X-band)	n (S-band)
1	166 ps	50 mm	2	0.5
3	500 ps	150 mm	6	1.5
5	833 ps	250 mm	10	2.5
7	1.16 ns	350 mm	14	3.5
9	1.5 ns	450 mm	18	4.5



To do (not in order)



- Define the exact length of measurements in the injector in connection with Anna & Cristina
- Define the exact length of the measurements in the rest of the machine in connection with Avni
- Put some diagnostics devices in the layout to find possible interference in connection with Nick
- Give a cost estimation
- Continue the interaction to solve the problem of the two bunches.
- Involve somebody in WP8 for photon diagnostic
- Last but not the least...



Thank you!

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