UFO-timescale quench test preparation - preliminary results

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Tobias Baer - the beam expert,
Markus Zerlauth - MPP piquet,
Agnieszka Priebe for preparation

CERN

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MD2 result

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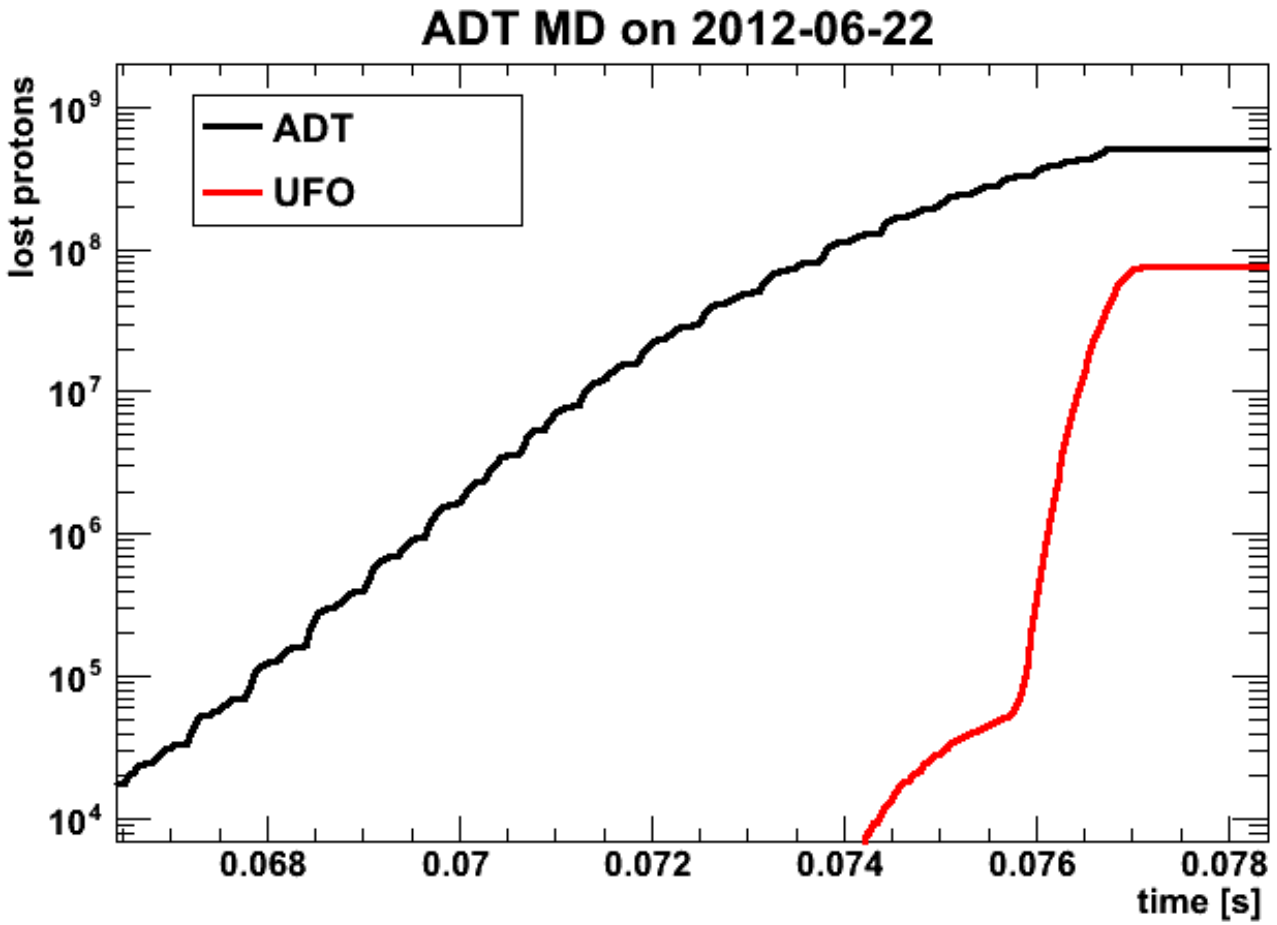
After MD2 (2012.06.22) our fastest loss looked like that:

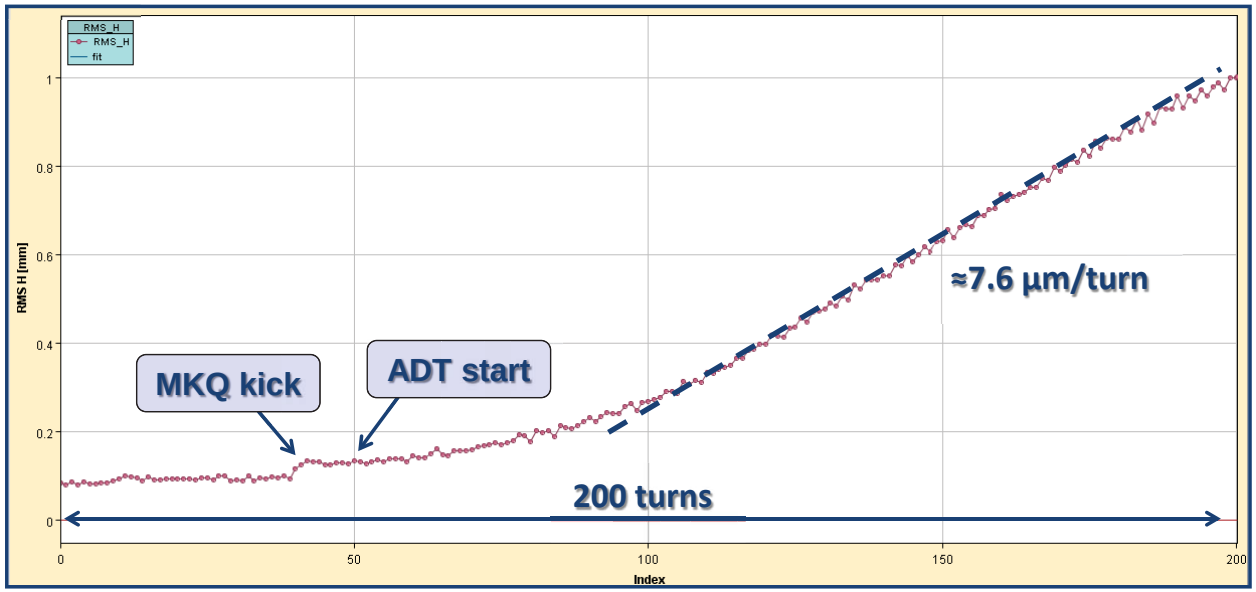


ADT at magic 400%

Original idea for the MD: give the beam an initial kick

MKQ: 100%, ADT: 400%

4TeV test on 13.10.2012 05:56:11



RMS arc position risetime: 7.6 µm/turn

It helped a little, but ADT anyway works in saturation...

The trick that did the job

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then Daniel scratched his head and came out with another trick...
(from Evian 2011 paper by Wolfgang and Daniel)

625ns ADT configuration

*Normalized **ADT kick voltage** for 625ns bunch spacing configuration is about **a factor 3 larger** than for 50ns bunch spacing.*

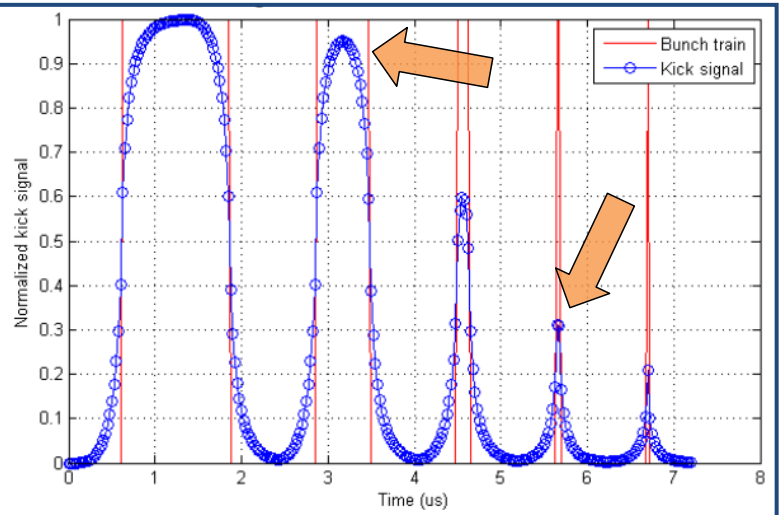

Figure 2: Available kick strength as a function of the bunch spacing. Red trace bunch train, blue trace normalized kick voltage. From left to right 1250-625-150-50-25 ns scenario.

And we got...

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