
Beam-Beam Wire Experiments

Guillaume, Natalia, Rama, Tatiana, Wolfram

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BBLR Experiments

Experiment I: Apr 17, 2007 (0 Hrs)

Permit pull due to wire, couldn't reinject so no data

Experiment II: Apr 24, 2007 (2 Hrs)

Blue & Yellow Nominal Store Tunes, Chroms etc..

Wire Scan with 5 Amps & 50 Amps

Blue very good data, Yellow marginally stable

Experiment III: May 09, 2007 (2 Hrs)

Swapped Blue & Yellow Tunes

Wire Scan with 5 Amps & 50 Amps & Current Scan

Chromaticity Scan in Yellow yielded promising results for next year

Experiment IV: End of June (CERN Folk)

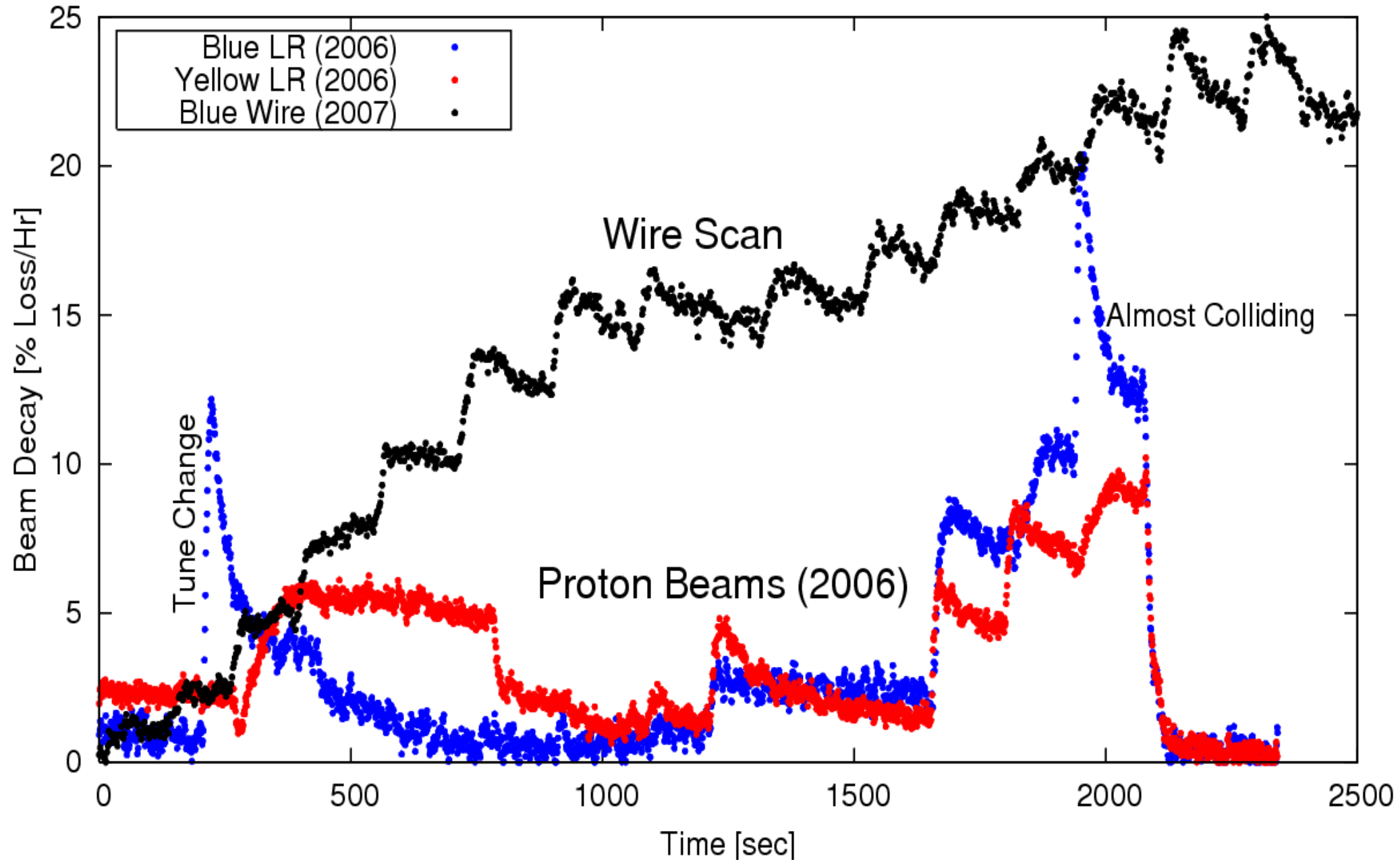
Stay with swapped tunes

Chromaticity at 5 Amps in both rings & Tune Scan

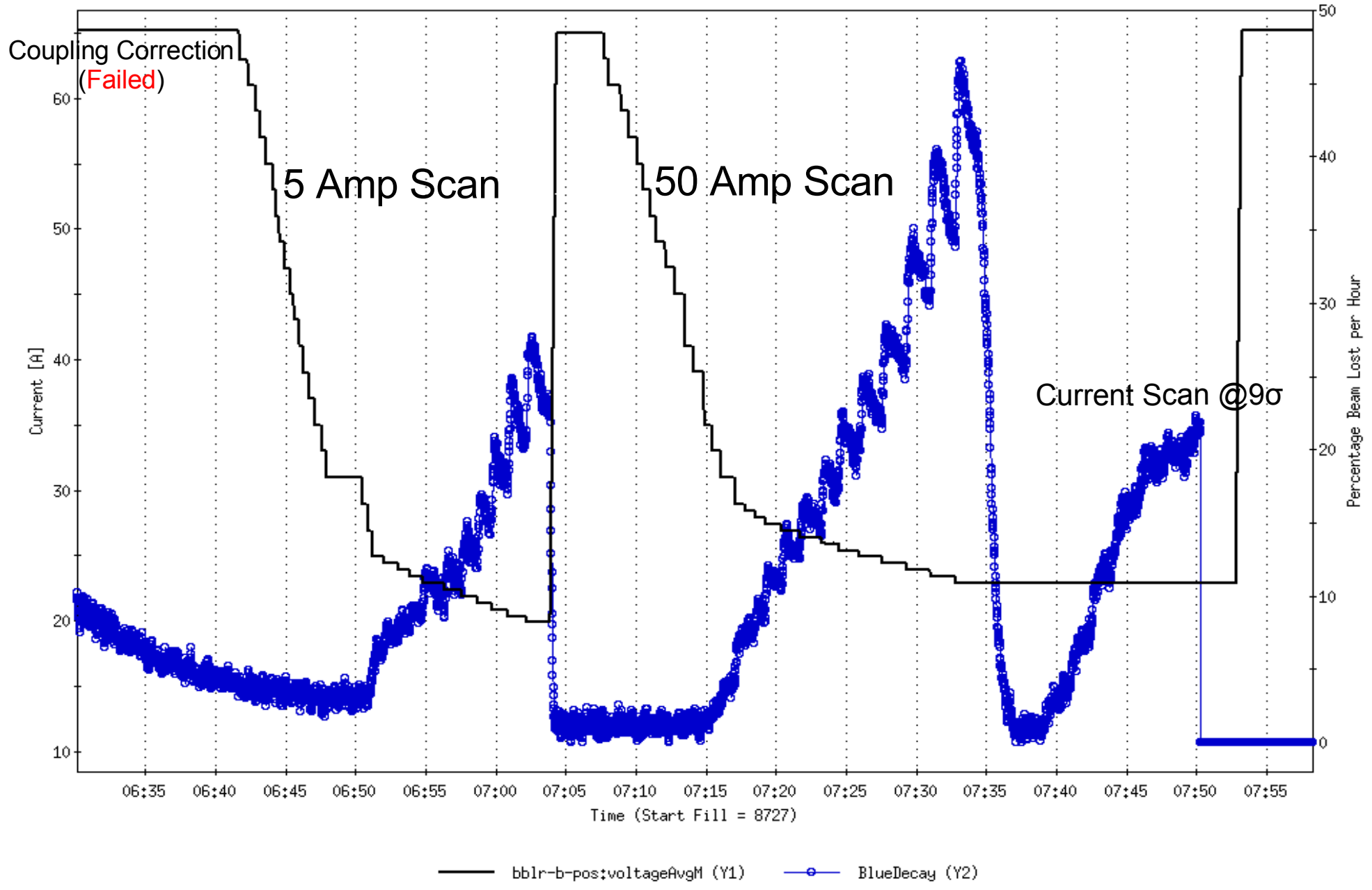
Try Octupoles, Beam-Beam, LHC tunes @injection with wire (lifetime ?)

Benchmark all this data with simulations (CERN, FNAL, LBNL, BNL)

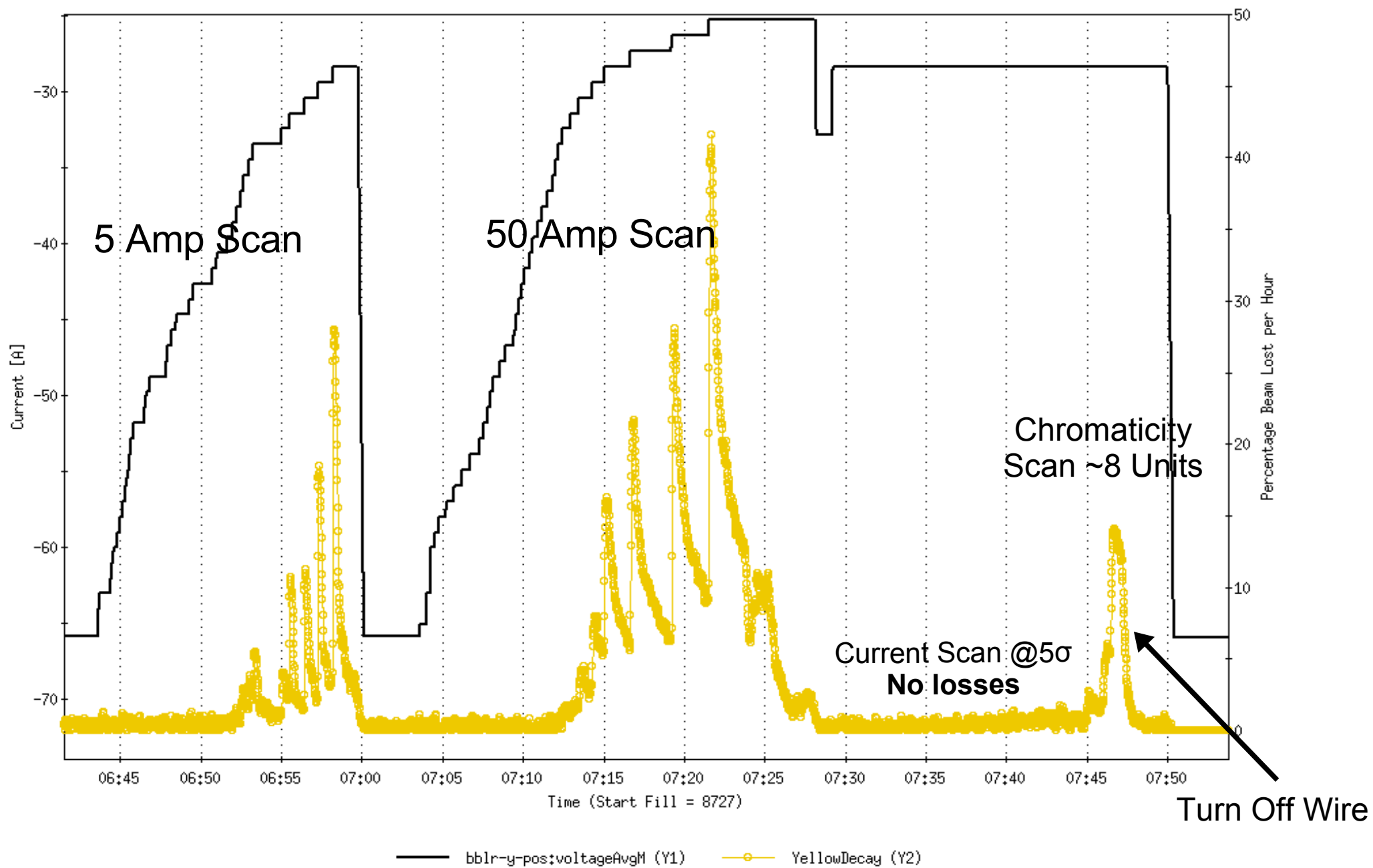
Comparison To Proton Beam



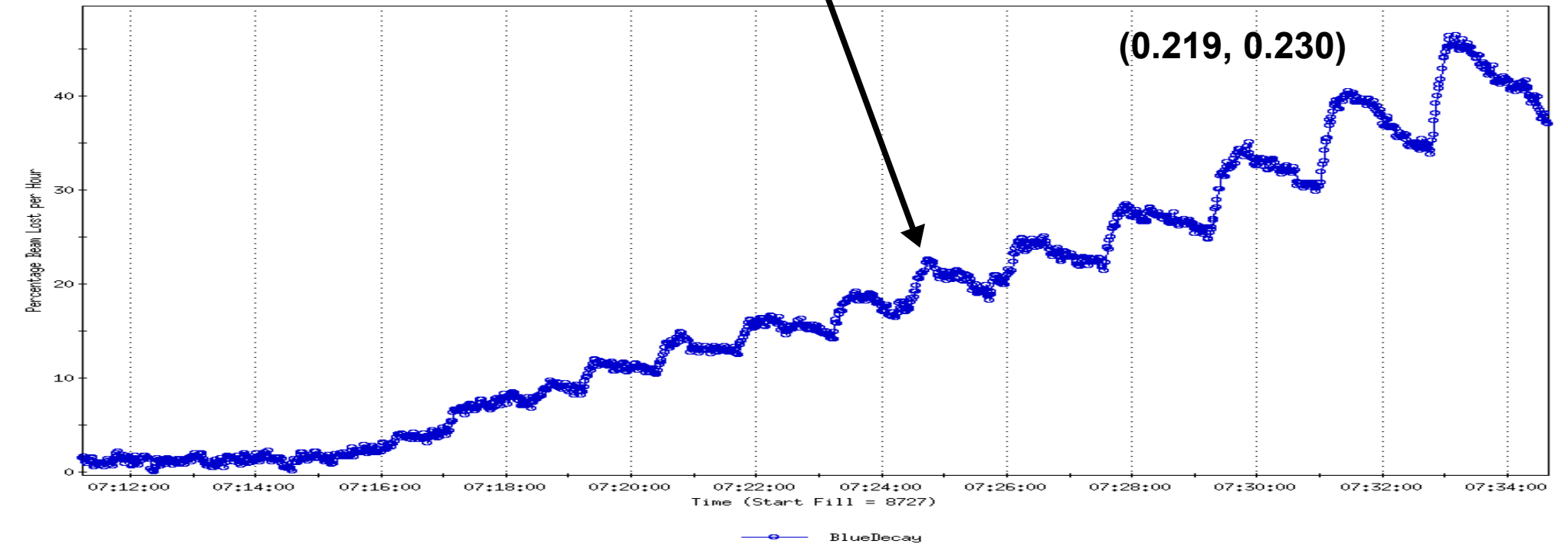
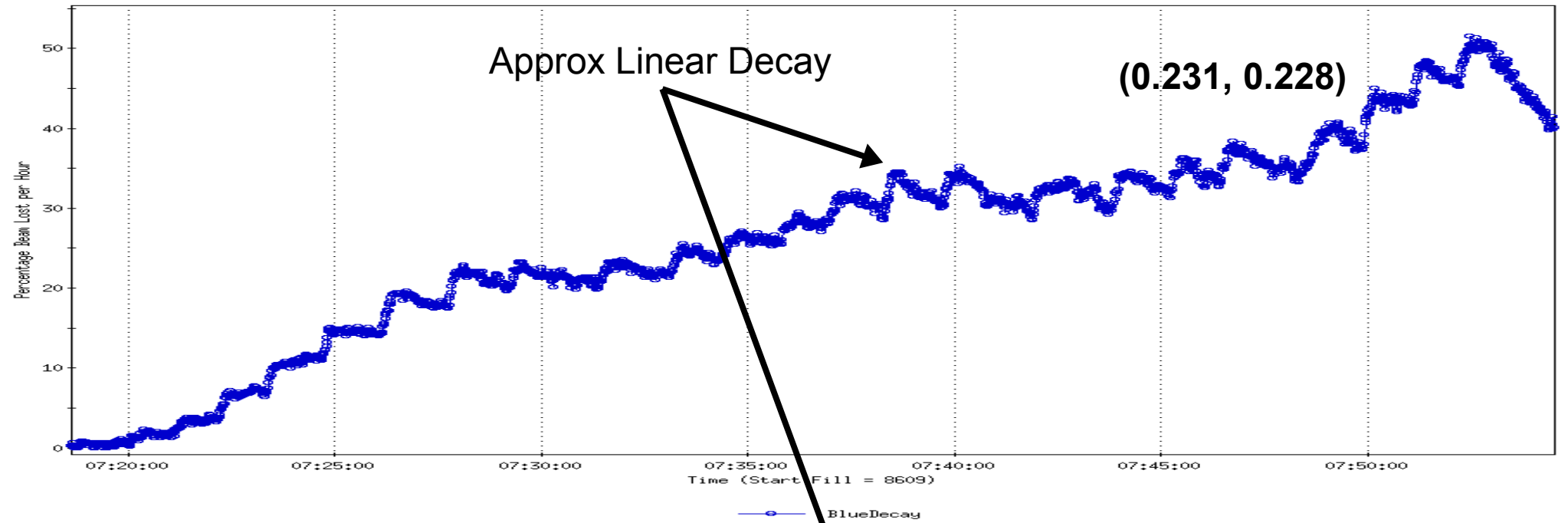
Experiment (~2 Hrs)



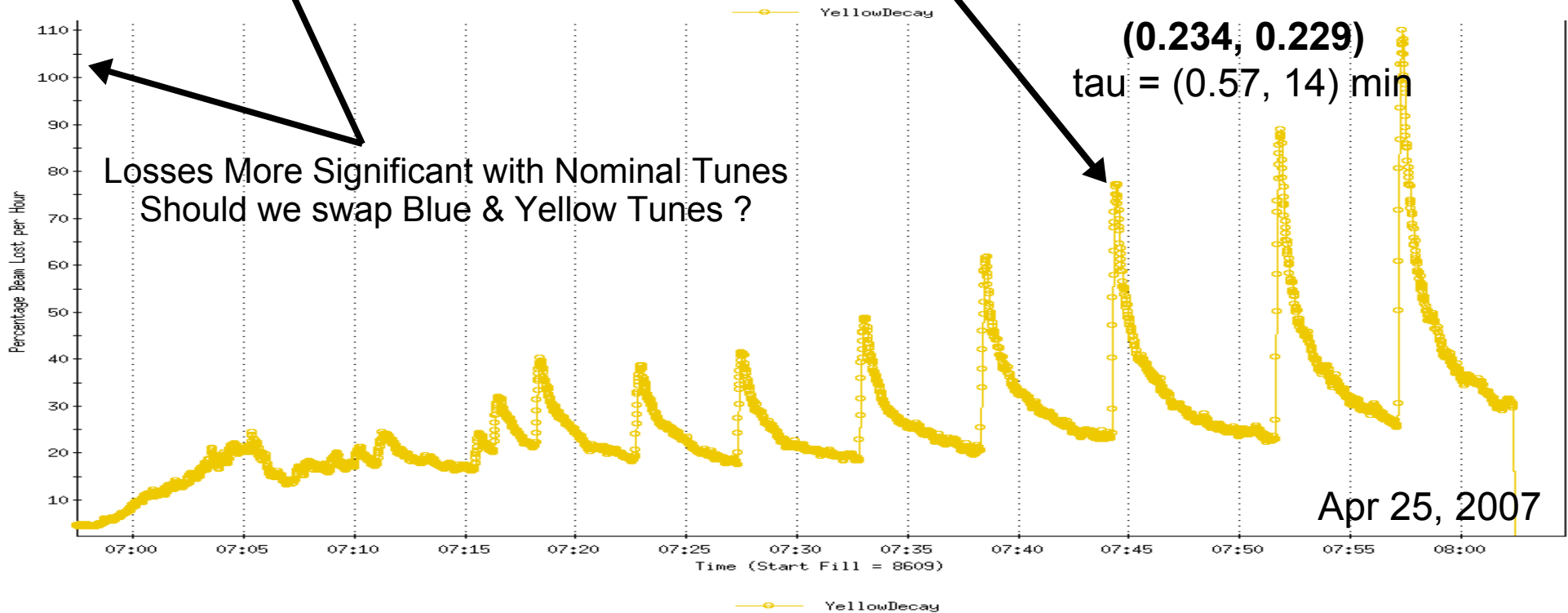
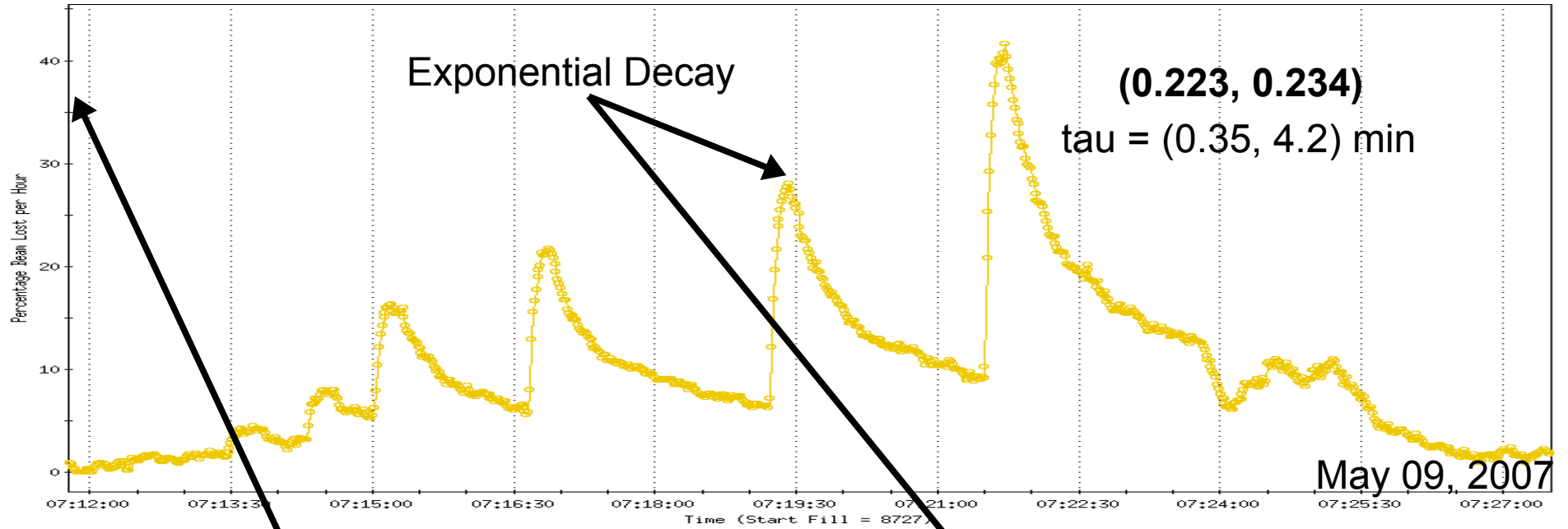
Yellow Ring



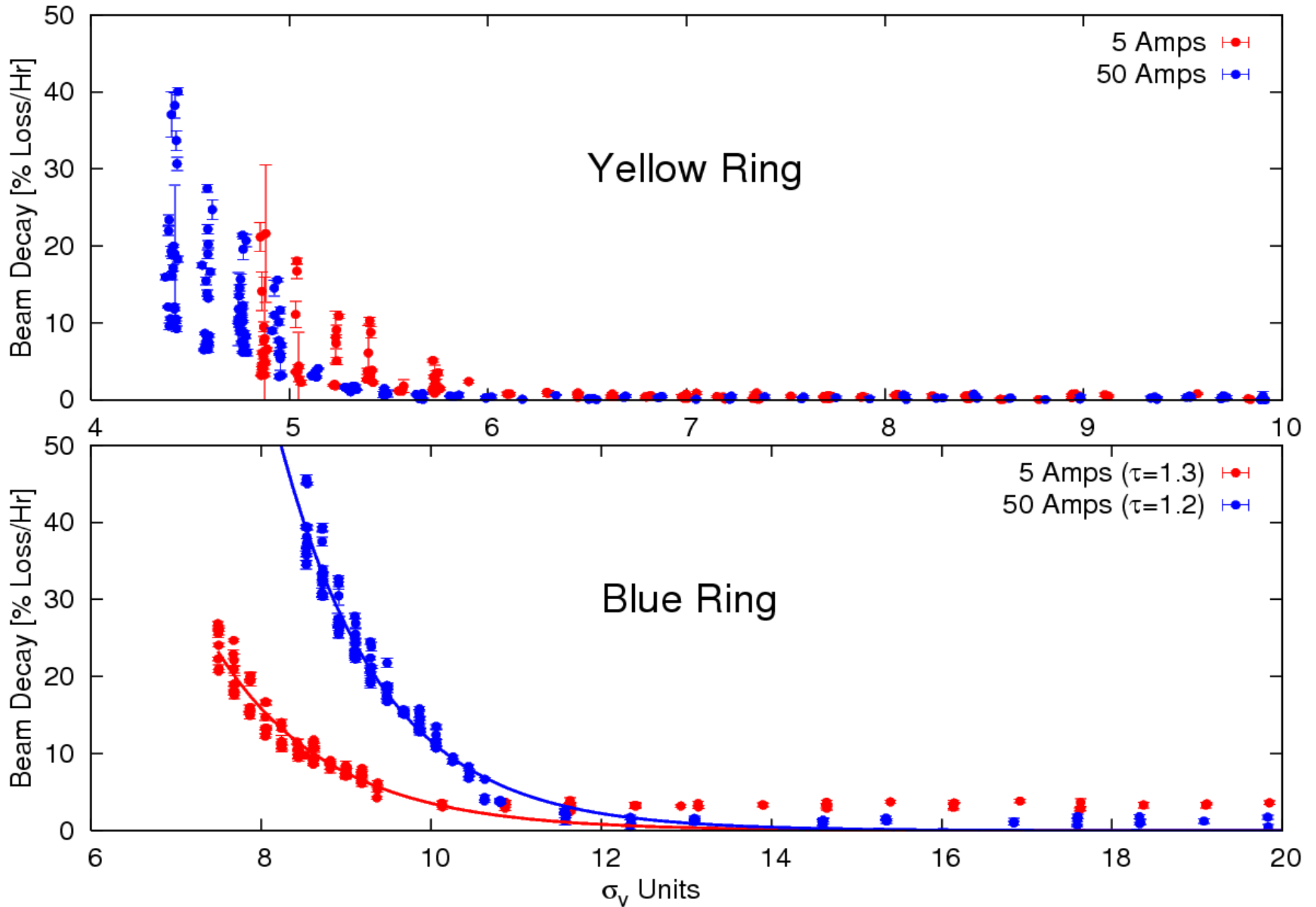
Effect of Swapping Tunes



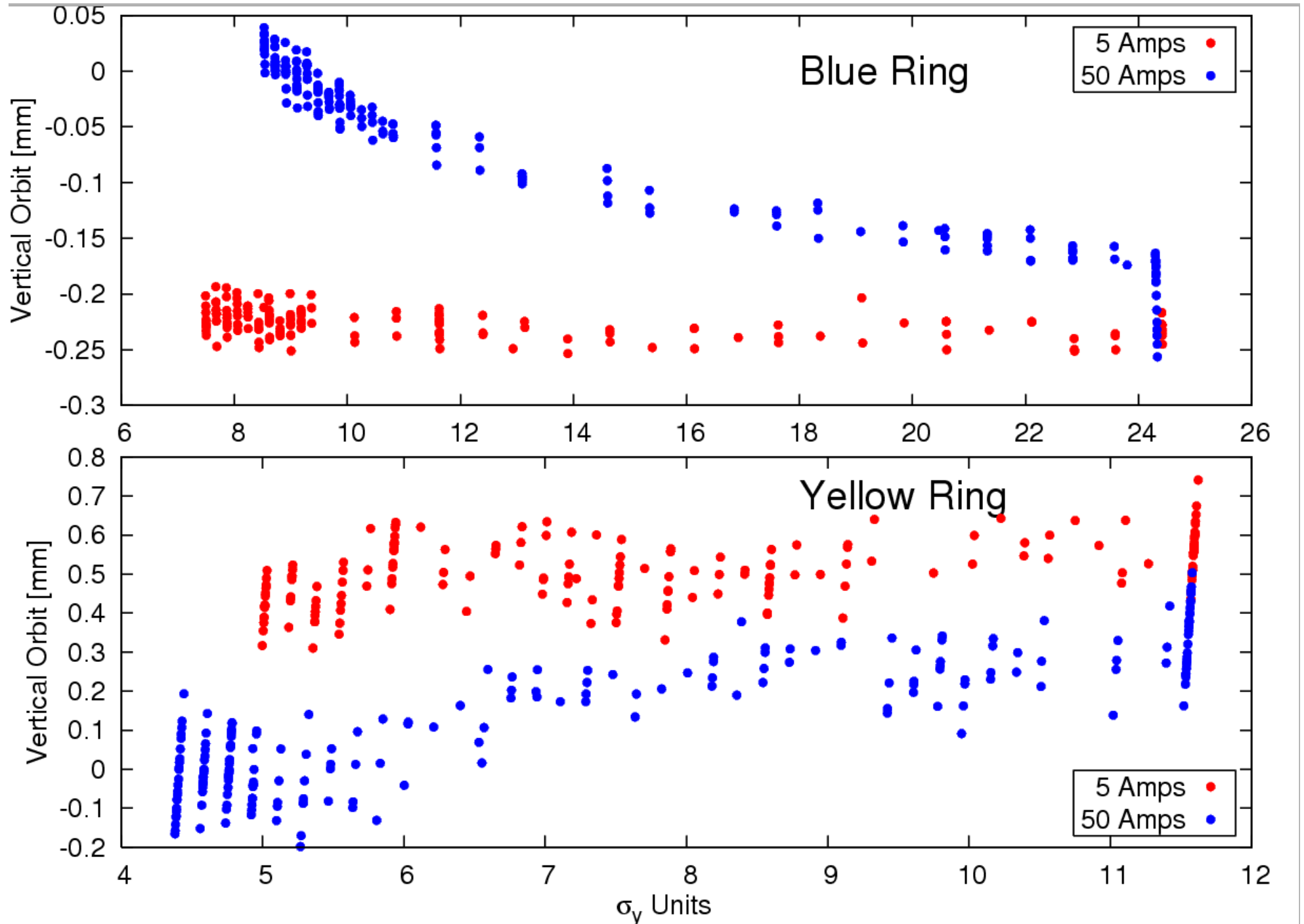
Effect of Swapping Tunes



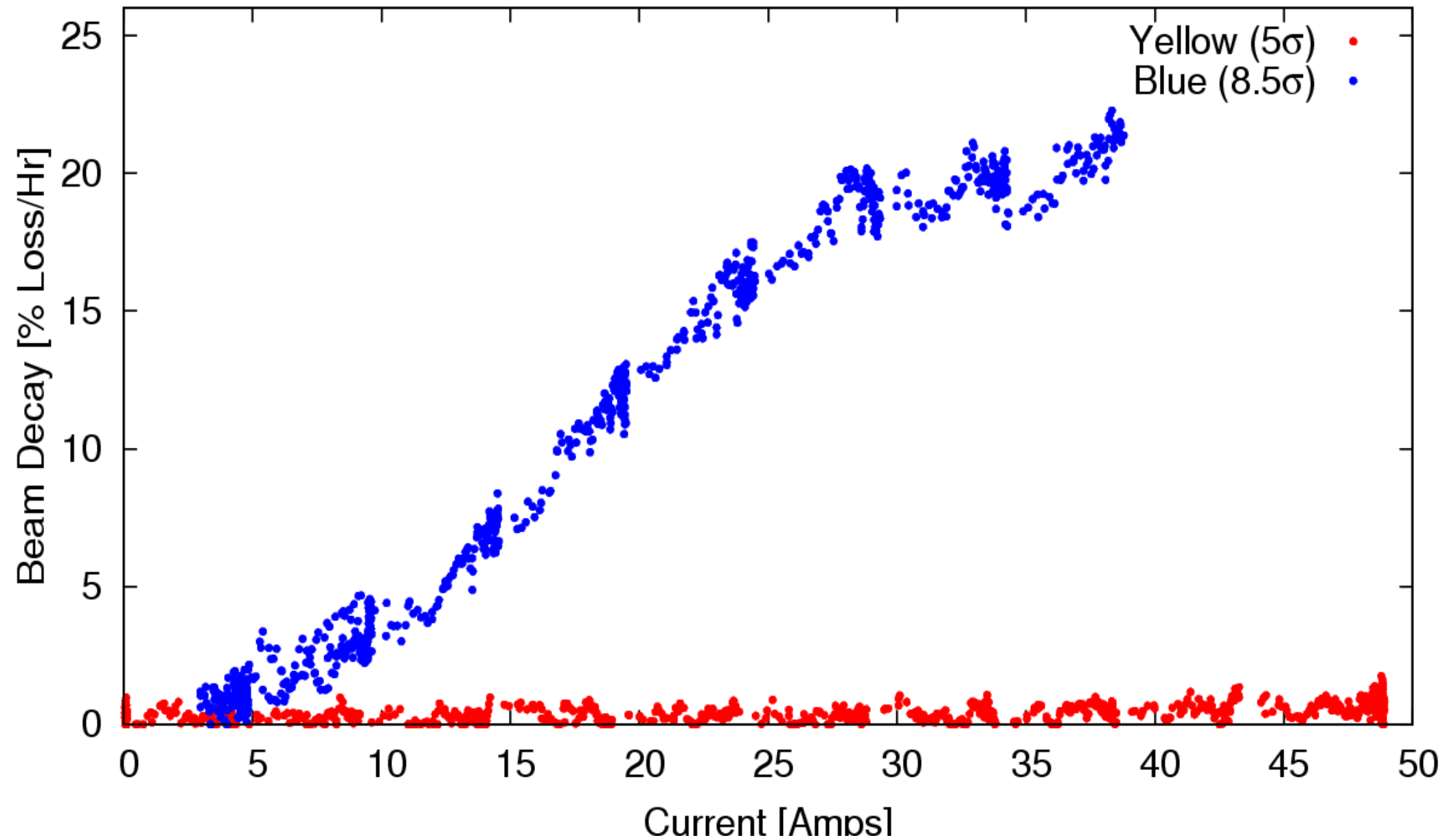
Loss Vs. Wire Position



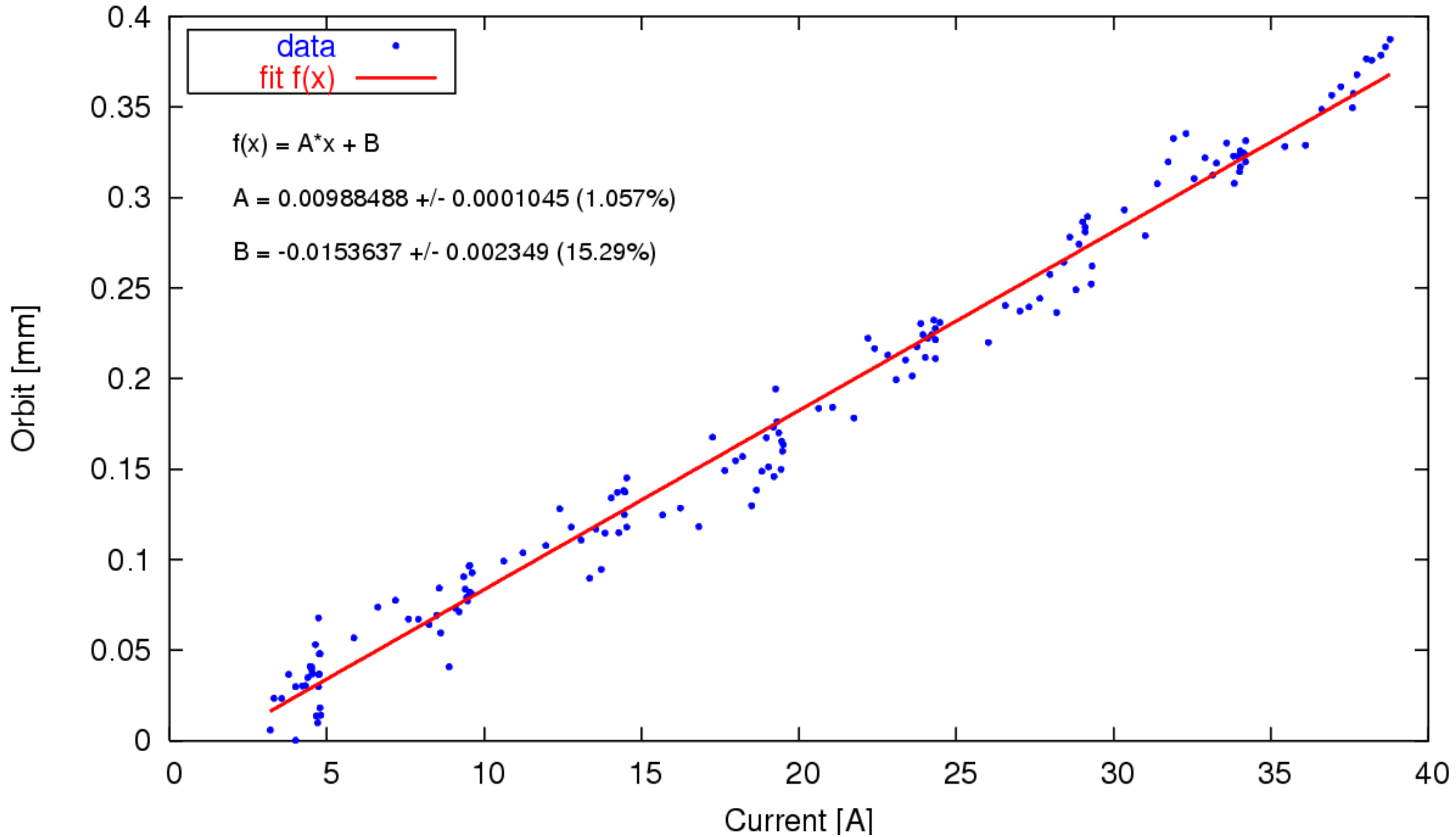
Orbit Vs. Wire Position (Blue Ring)



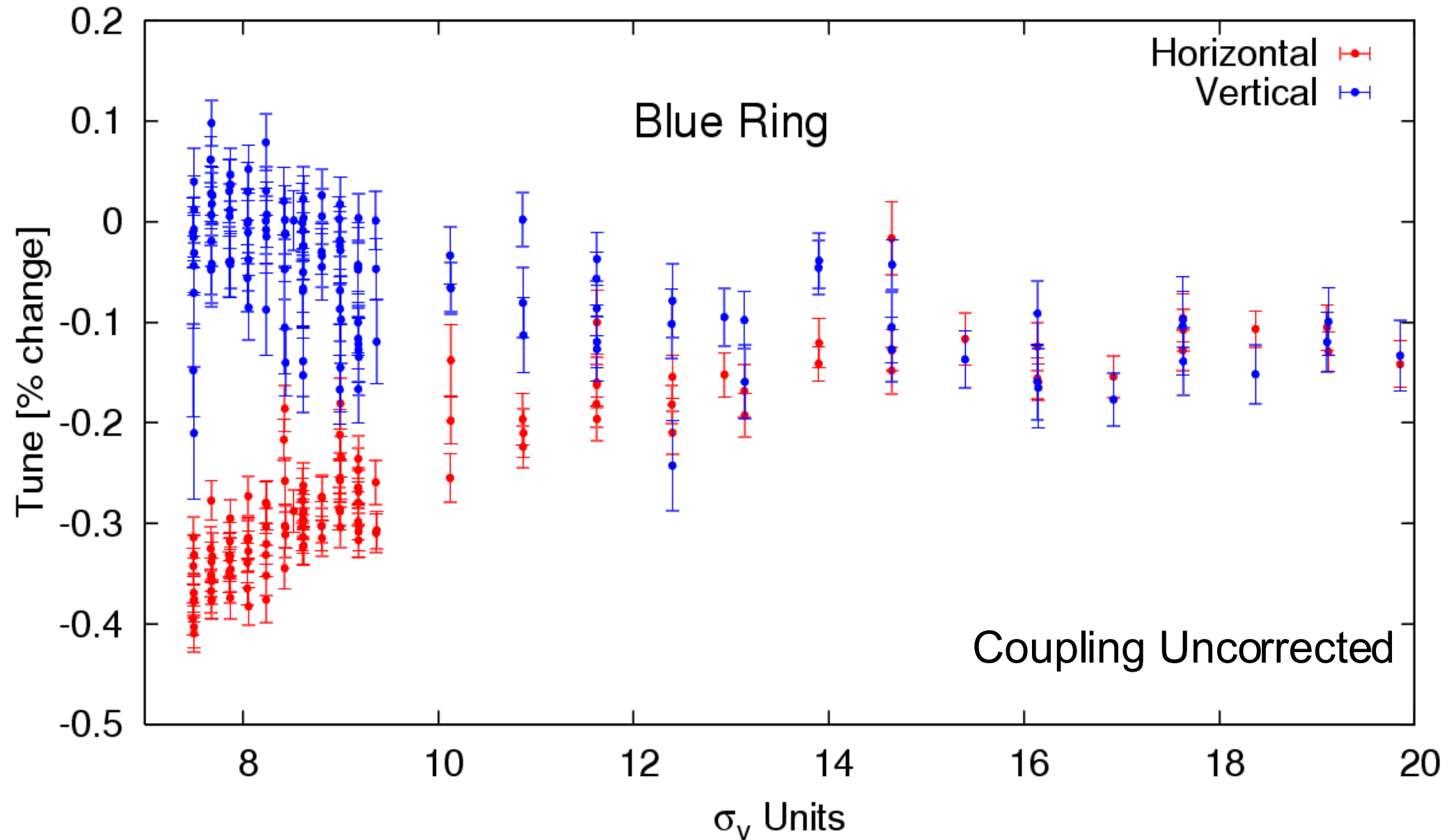
Current Scan



Orbit Vs. Current



BBQ Tunes Vs. Wire Position



More Analysis Underway