

APEX: electron-ion heating (preliminary report)

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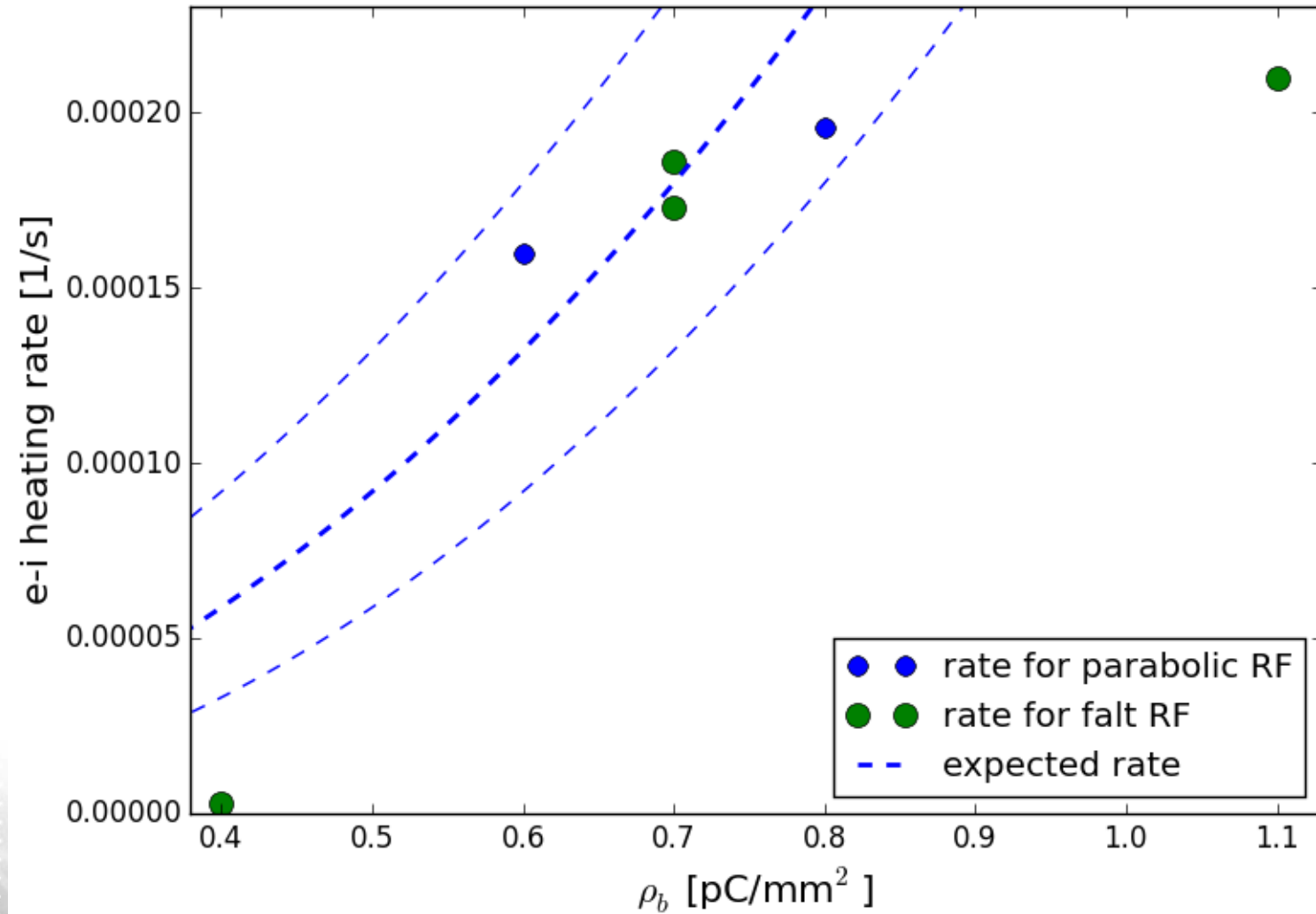
Studies performed on March 10, 2021

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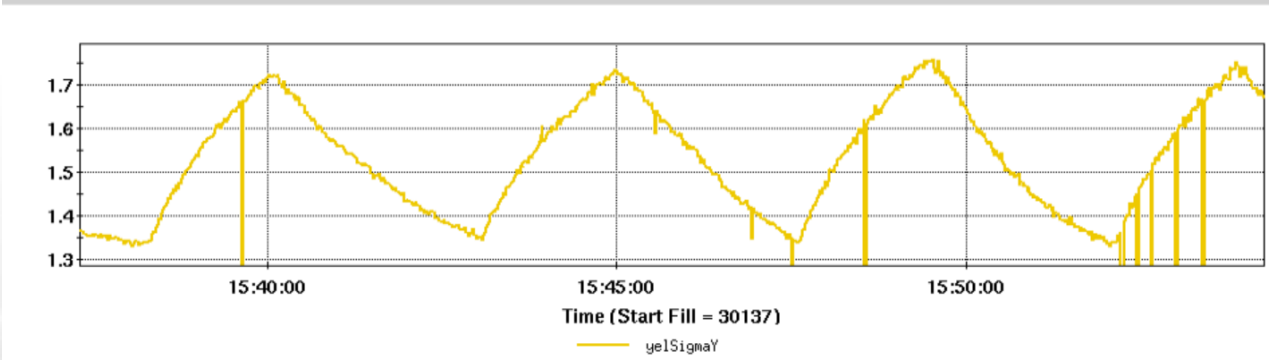
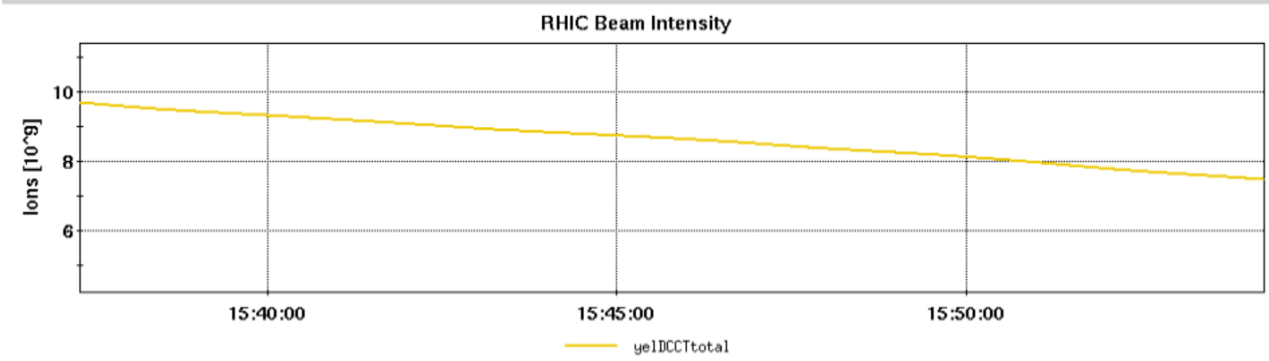
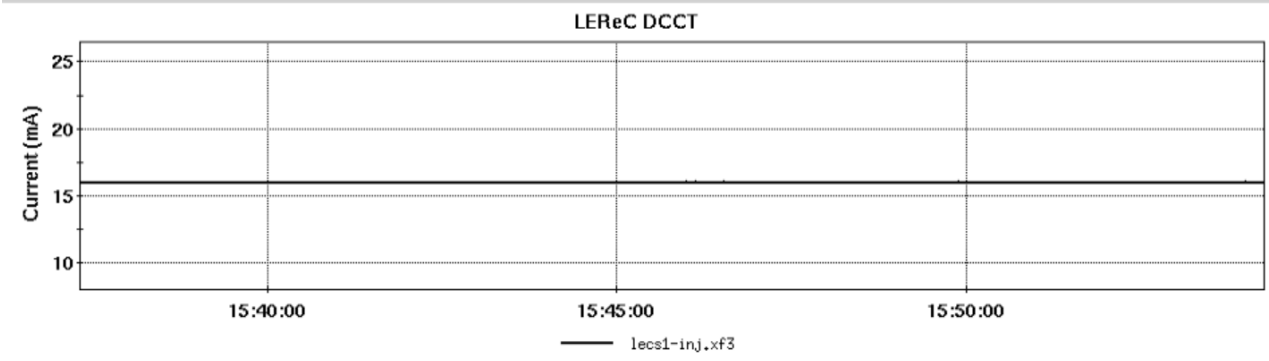
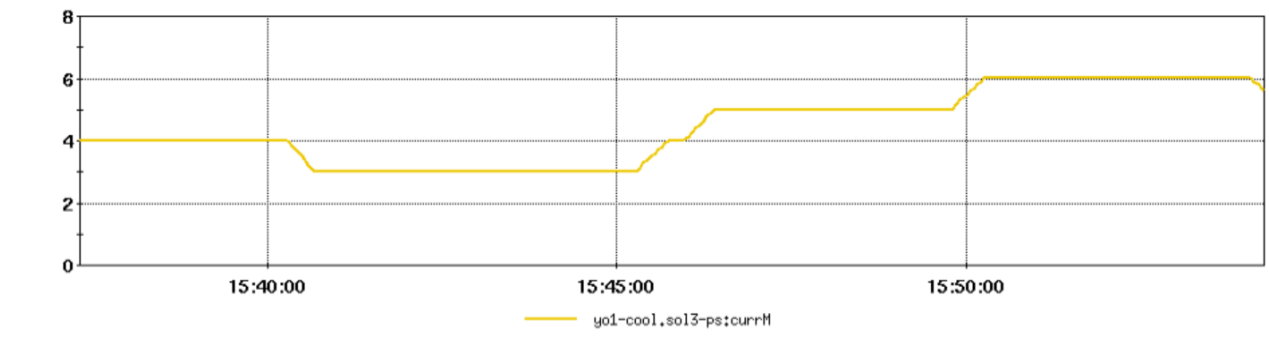
Main result of the previous studies

- There is no quadratic dependence of the heating rate on the e-bunch charge density



Preliminary result from the latest studies

- There is NO dependence of the heating rate on the e-bunch charge density



There is some dependence of the heating rate on an overall e-bunch charge though

What's next?

- We'll have a clearer idea how to proceed after we finish analyzing new data
- We definitely would like to see what else does the heating rate depend on. Is there dependence on the e-bunch length?