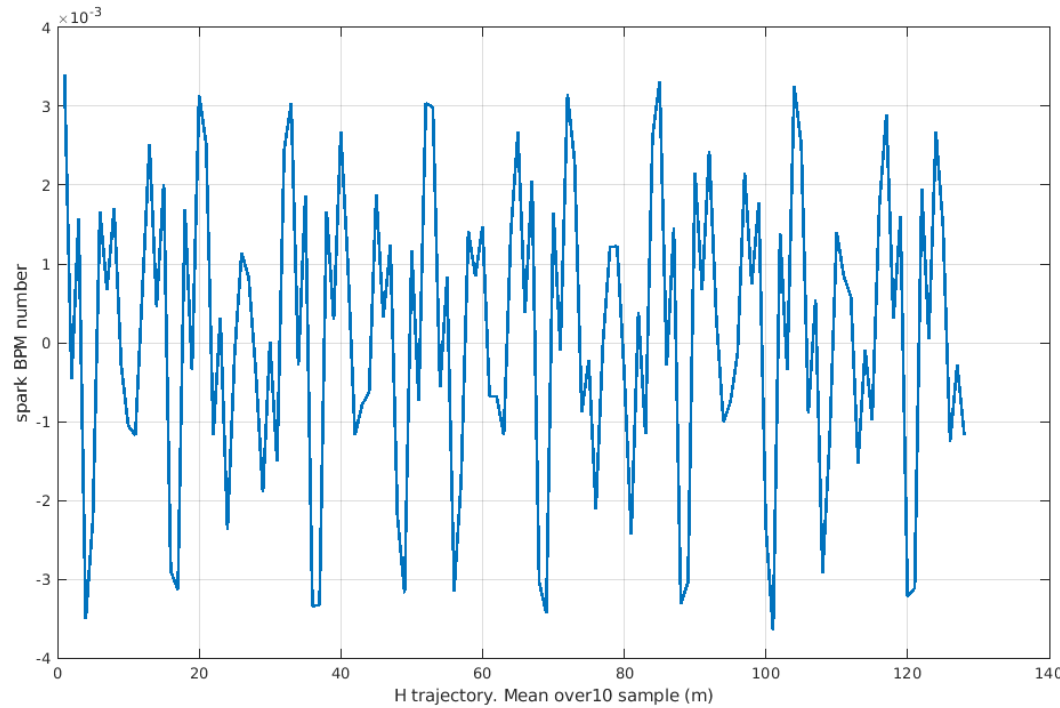


FT trajectory and Strip-Line development



Mean first turn trajectory (10 samples)

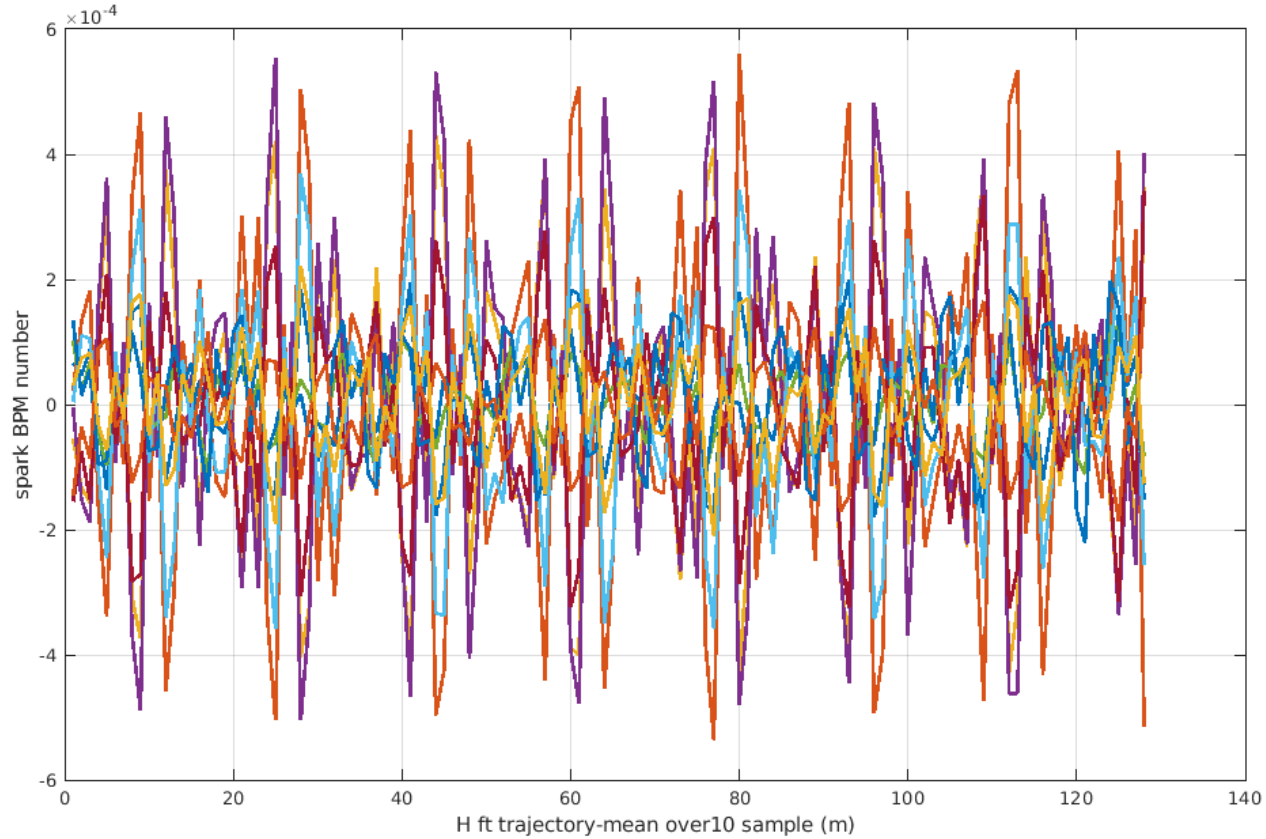


RMS 1.9mm

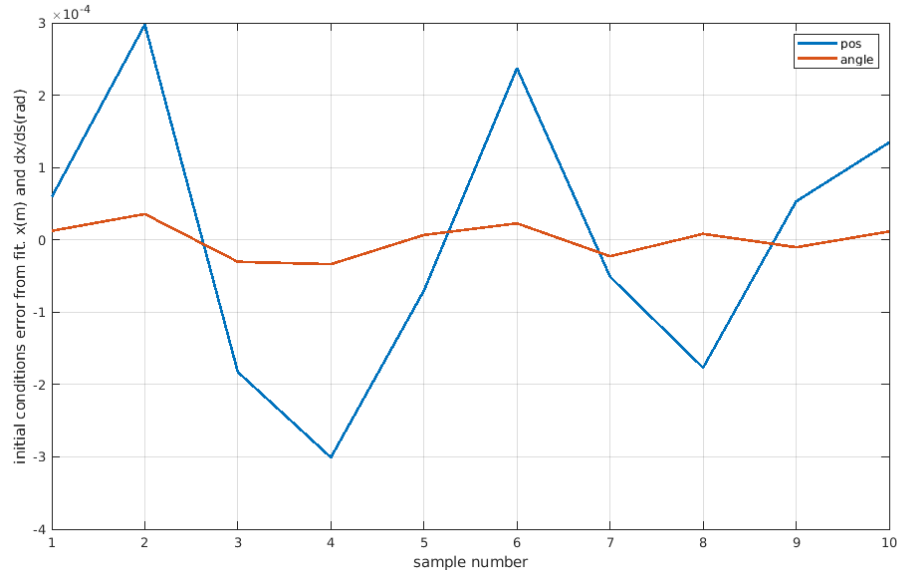
During experiment with Kees to find an easy way to get TBT data only from the sparks, we measured 10 samples of injected beam first turn trajectories to study shot to shot stability of injected beam.

N.B: Almost all abscissa/ordinate labeling have been switched by mistake.....

trajectory shot to shot variations



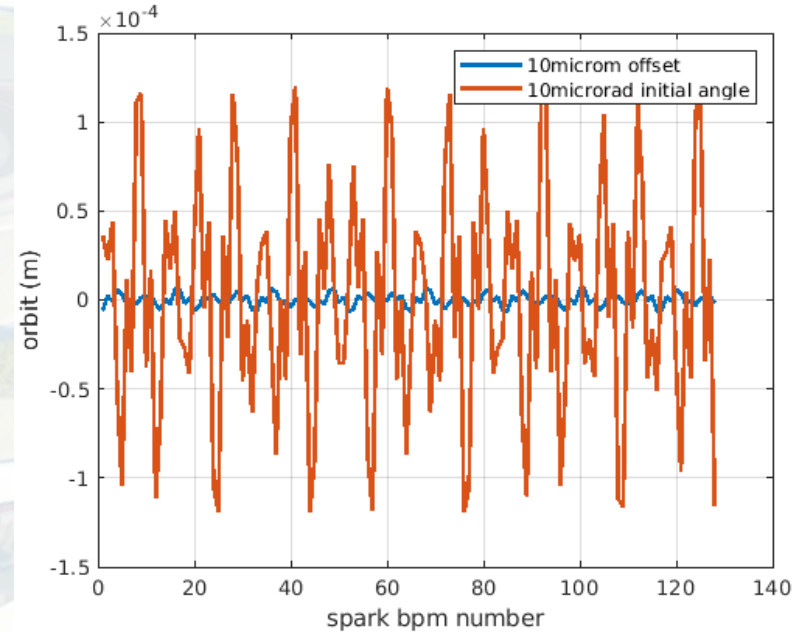
Fit of initial conditions for the 10 samples



rms pos=0.182mm
rms angle=0.022mm

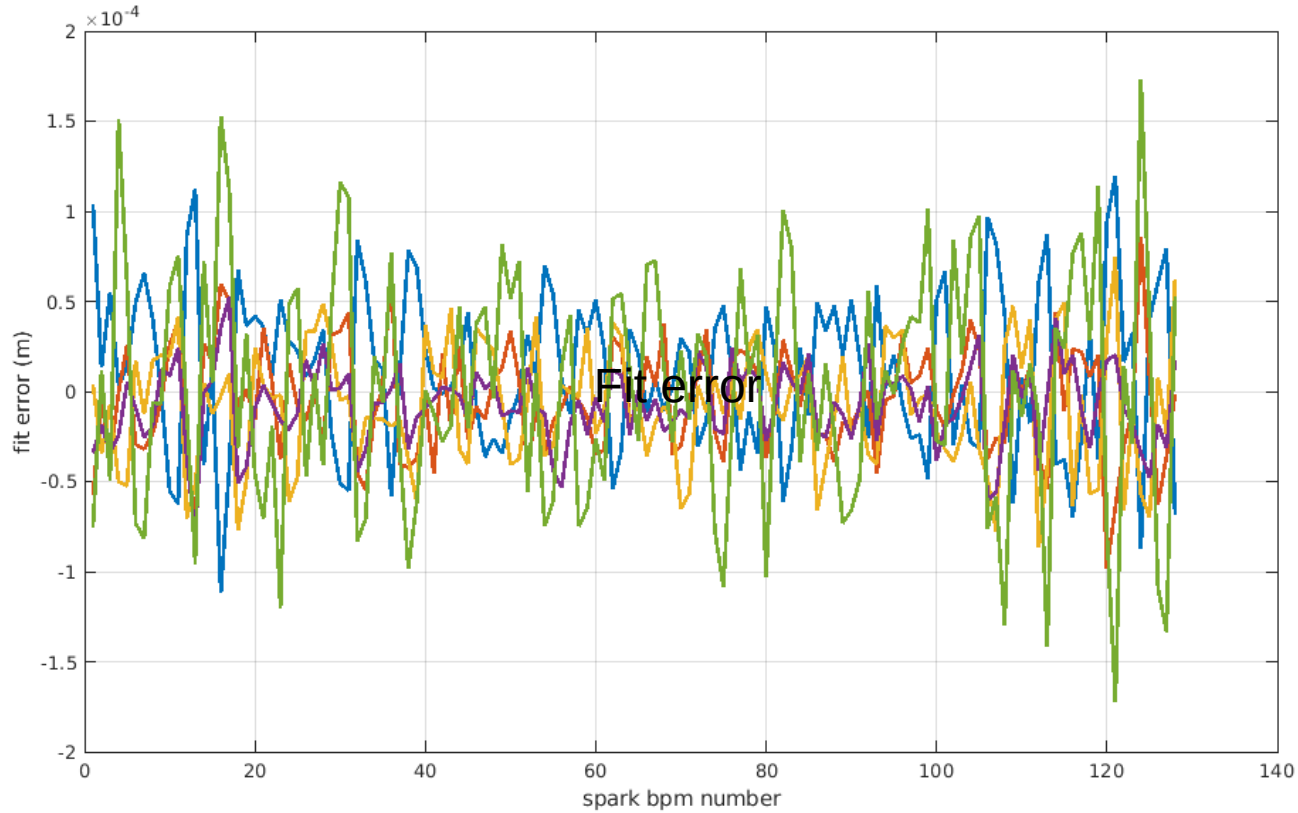
Needs to be correlated with errors induced by the different pulsed jitter.

Response matrix



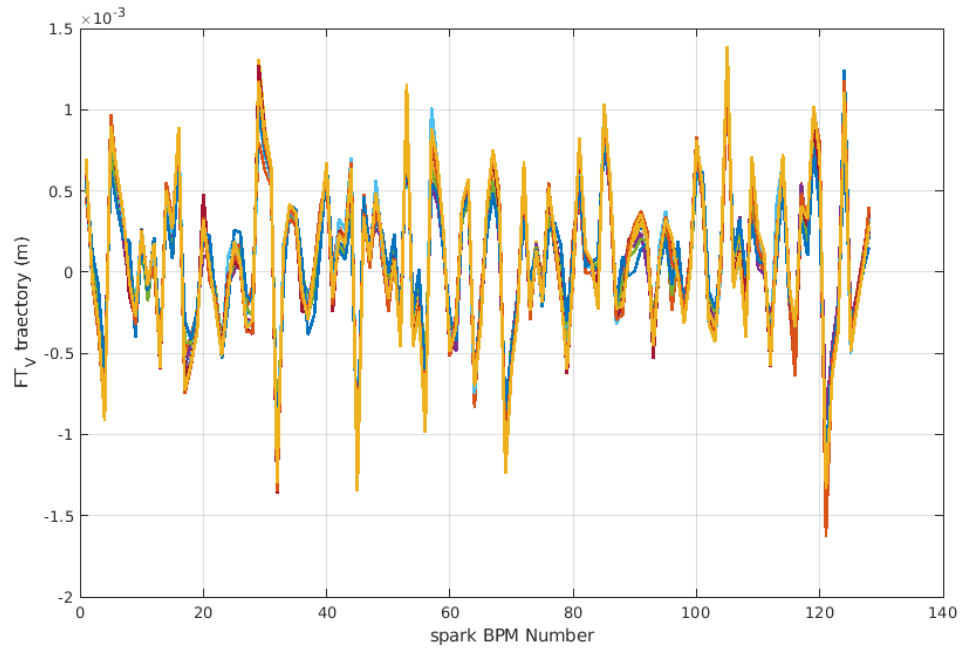
rms pos=1/20 rms angle

Fit error



RMS 0.040mm (over 1.9mm of orbit)

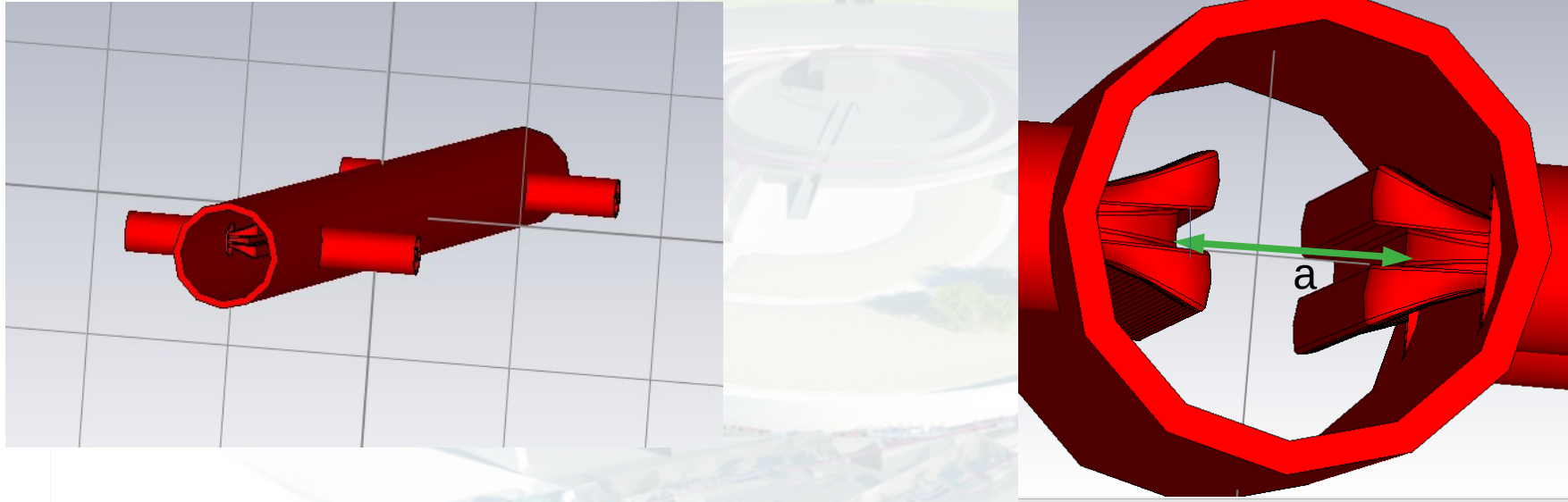
Vertical



Vertical trajectory of 10 injection shots

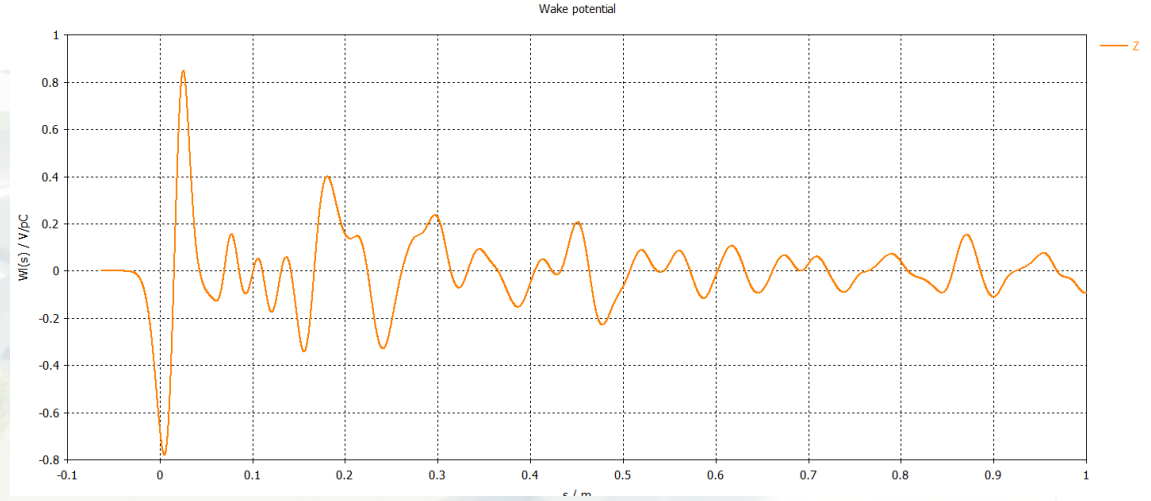
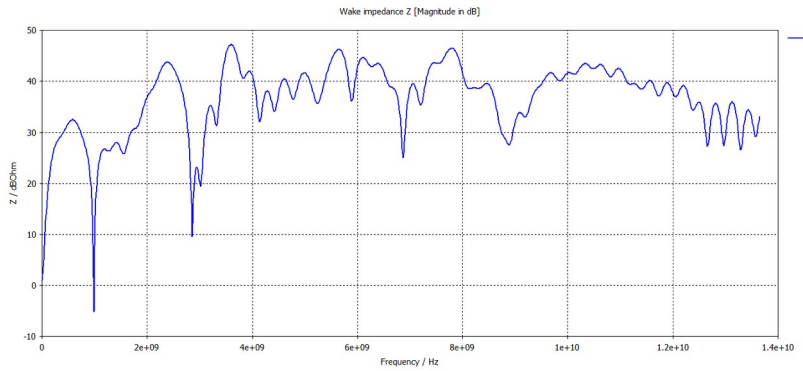
RMS=480 microm

Strip-line design



Strip line under CST: -Blade_Length=0.9m
-H opening (a)=24mm
-V opening =8mm

Impedance

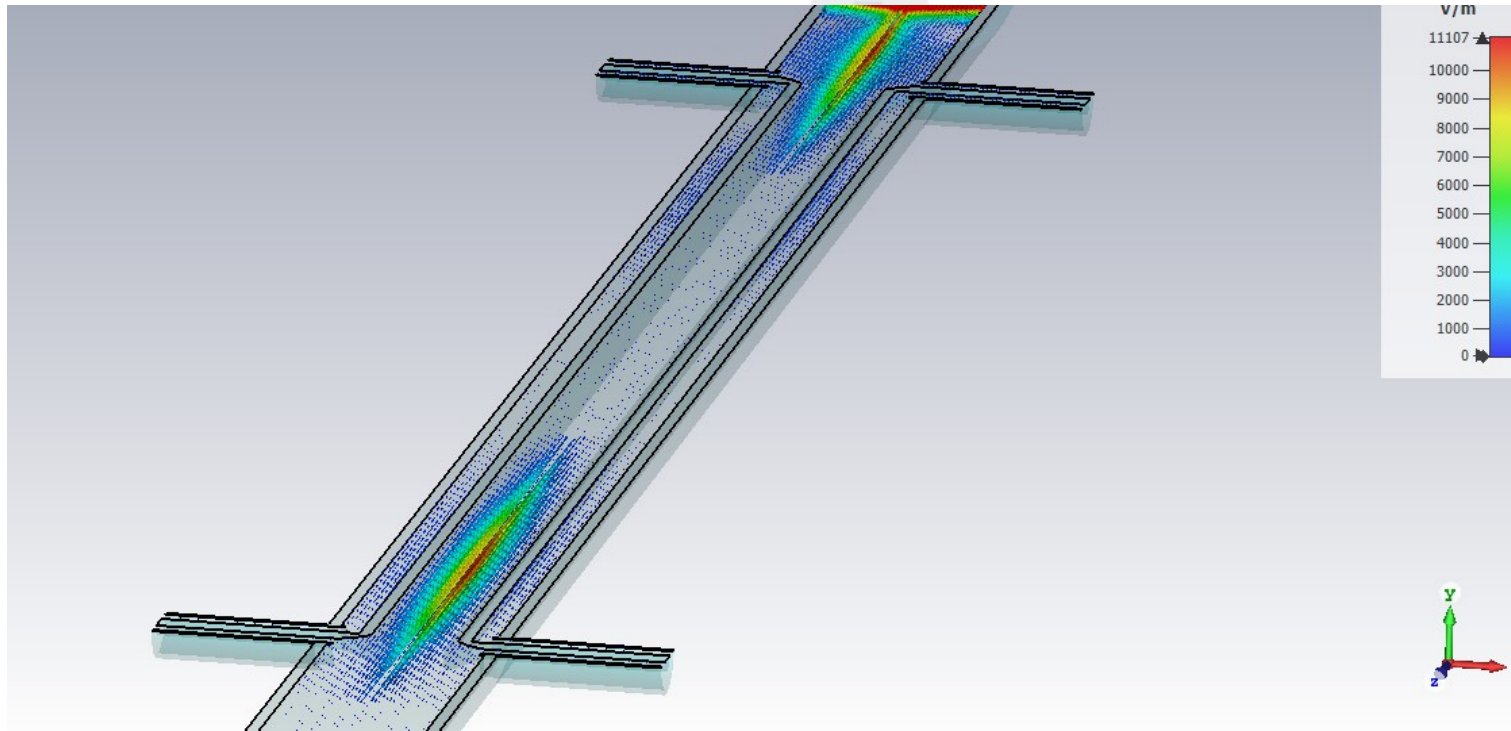


loss factor=0.15 V/pc or ~ 10 w dissipated at 200mA multibunch.

IF no multibunch effect.

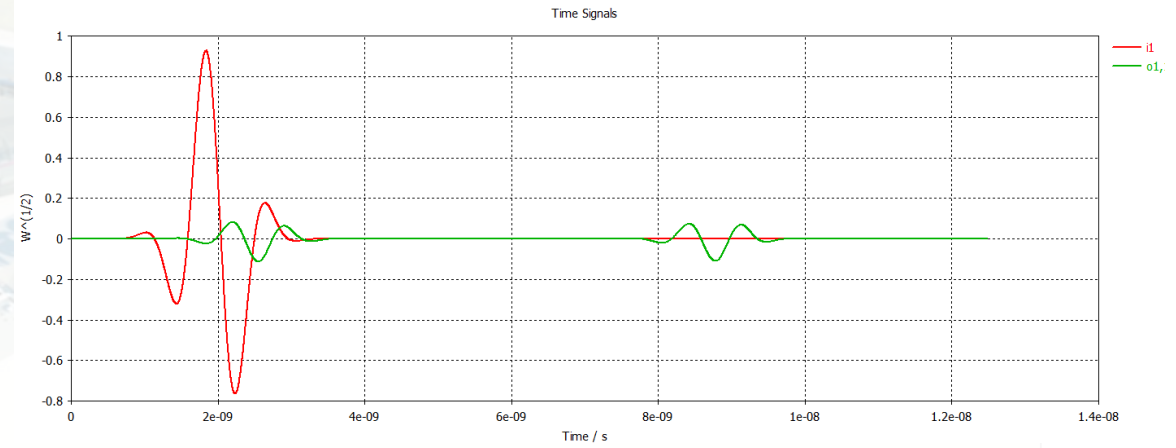
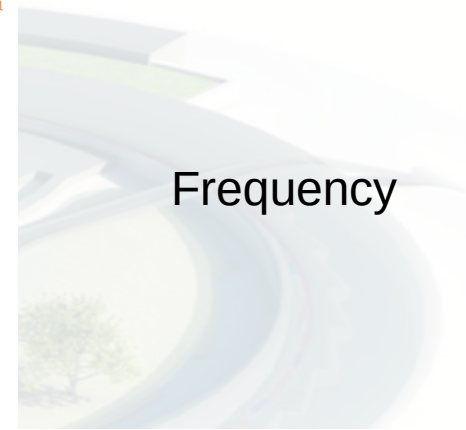
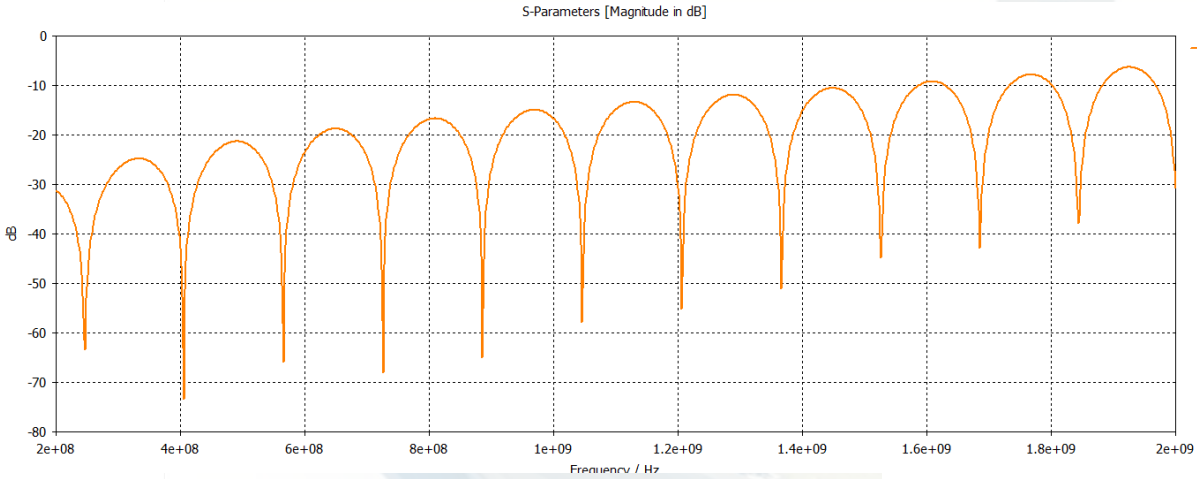
IF physics of the simulation is properly defined(No reflection at connectors ends, wake calculated over right length etc....).

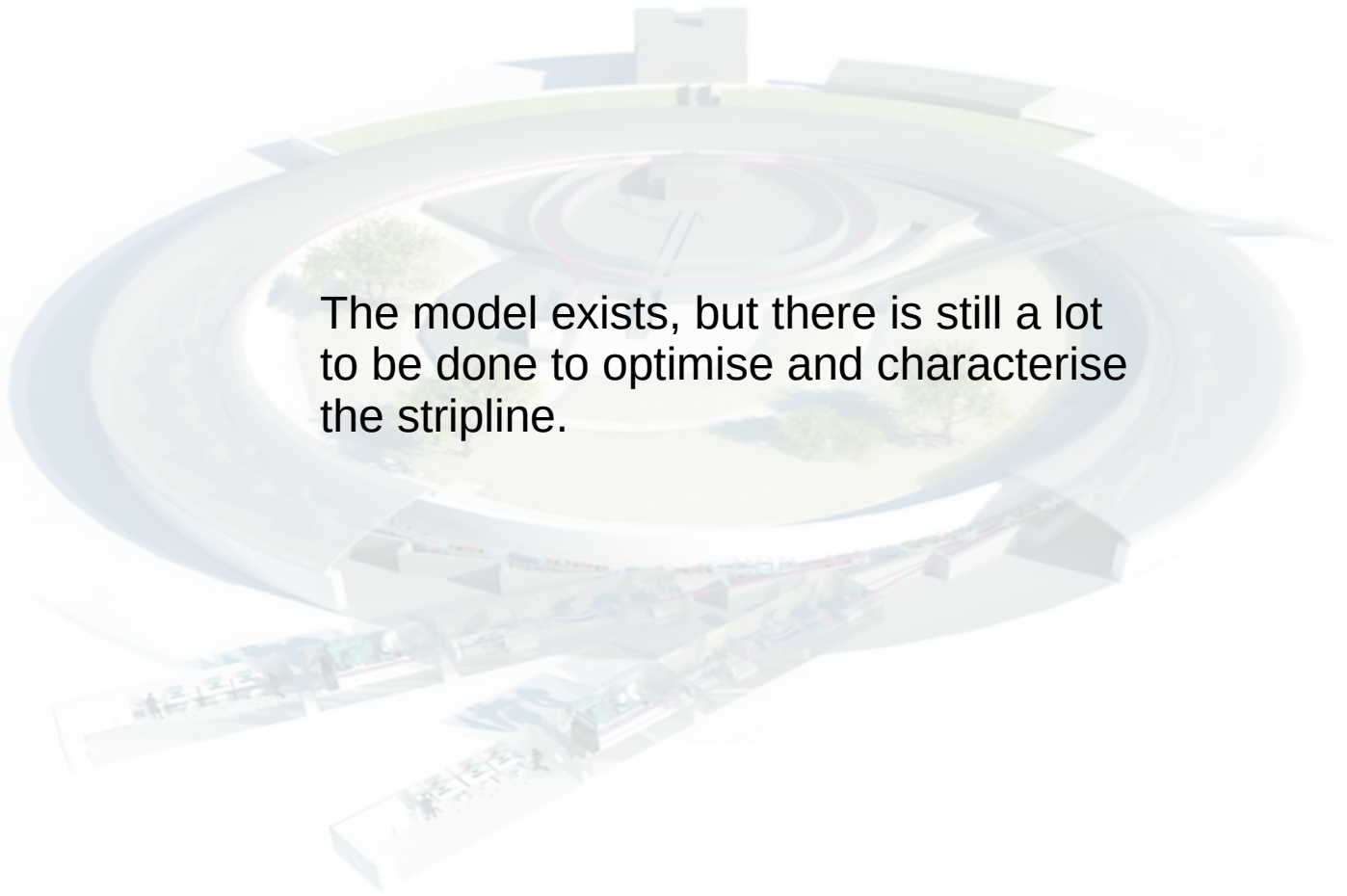
Field for 10 bunches, between bunch 8 and 9



No field builds up due to SL blades. Transitions need to be added

S parameter for the generator mode (the one triggered by the pulse generator)



A 3D architectural rendering of a large stadium, viewed from an elevated perspective. The stadium has a circular or oval shape with multiple tiers of seating. A prominent feature is a long, narrow, rectangular structure, likely a stripline, extending from the side of the stadium towards the center. The rendering is semi-transparent, showing the internal structure and the field area. The text is overlaid on the central part of the stadium.

The model exists, but there is still a lot to be done to optimise and characterise the stripline.