Issue with the Spectra

https://docs.google.com/presentation/d/ 1oS1jyBtleAXIFqPzEUg_Km6fsCf9KcFyMNGpIoIMaW4/edit?usp=sharing

- side lobes in the higher heights
- distorted above 2.12 km

Due to this, the spectra and hence moments files will be having some issue after the replacement of the new antenna i.e, 23.08.2023 to 18.09.2023

To resolve Spectra side lobes

Below lincc settings show how to resolve the spectra issue

• switching off the Half-overlapping

LMXC Radar Control Client (2.6.2019051 😣
<u>File View Tools Help</u>
CONN HIGH LOW HEALTH MAIN TREE LOG
GRST GRAPH SDATA SLOG
TRANSMITTER / RECEIVER CONTROL
Receiver 🥥 DN DFF TRB Control: 🔿 😷
Transmitter 🥥 DFF DSP Control: 🕥 🕐
Radiation 🔴 ON OFF
Errors I RESET
Compressor: 🥥 Safety Option: 🍘 Antenna: 🍘
TX SETTINGS
Pulse: 208 ns Range bin: 208 ns PRF: 5000 Hz
-PROCESSING CONTROL
Spectrum settings
Pulses in FFT: 256 FFT Time: 0.0512 s
Averaging of spectra: 1 × 0.051s = 0.05 s
Height settings
Min: 155.89 m 🚔 Count: 768 🚖 Range: 23945.02 m
DSP Data Output
Spectra 🗖 IQ data 🗹 Moments 🔽 Rate: 29.910, Mb/s
-XCRL-PROCESSING CONTROL
MODE: 26 - < Co> , < Co^*Co^* > (22+25) HDD: 0.60, Mb/s
FFTw: 2Hanning 🔽 Half-Overlapping: Size: 1051.6, Mb
Thr_Q: 9 + Averaging: 100 + × 0.051s = 5.120s
C Update Apply C XCRL Update XCRL Apply
Stable state. Radiation on. 010d:23h:14m:56s
Mon Sep 18 15:29:39 2023 localhost: Control/View

Spectral density after the above settings are changed





