Linear Prediction Emily Gruver

Linear prediction is a mathematical processing tool. It predicts the FID to add more data points. This can double the sensitivity and resolution of the spectrum.

Instructions

- 1. Acquire a spectrum as normal.
- 2. Open the ProcPars tab.
- 3. Click Fourier on the left.
- 4. Turn Me Mod from off to LPfr or LPfc
 - a. LPfr is linear prediction on real data
 - b. LPfc is linear prediction on complex data
- 5. Change the NCOEF = 32
 - a. Set to 2-3 times the number of expected peaks, 32 is default
- 6. Increases LPBIN, if desired.
 - a. LPBIN is the number of points for linear prediction
 - b. 0= two-fold, 3*td= four-fold, 7*td = 8 fold
 - c. Be careful, predicting too many points will change the shape of your data
- 7. Re-process the data.
 - a. Xfb for 2D, efp for 1D