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 "no" 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= 8fold
  - 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