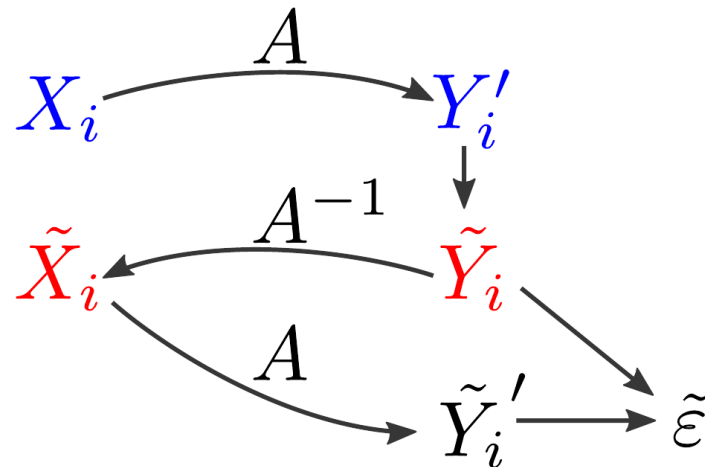


General description of algorithm errors

- Description of estimation of algorithm errors and its estimation
- Precalculation of uncertainties





New part of QWTB: QWTBvar

- variate input quantities or its uncertainties,
- calculate errors of output quantities to the nominal values,
- plot dependence of output quantities on the variated input quantities or its uncertainties,
- create lookup table of uncertainties of output quantities,
- interpolate the lookup table for quick estimation of uncertainties.

New part of QWTB: QWTBvar

- Variation of input quantities or its uncertainties
- inputs: algorithm, input Q , varied Q
- outputs: file name with results

```
[jobfn] = qwtbvar(algid, datain, datainvar, calcset)
```

- Plotting
- inputs: results, what to plot
- outputs: figure

```
[H] = qwtbvar(jobfn, varx, vary, varz)  
[H, x, y, z] = qwtbvar(jobfn, varx, vary, varz)
```

New part of QWTB: QWTBvar

- LUT building
- inputs: results, axis of LUT
- outputs: LUT

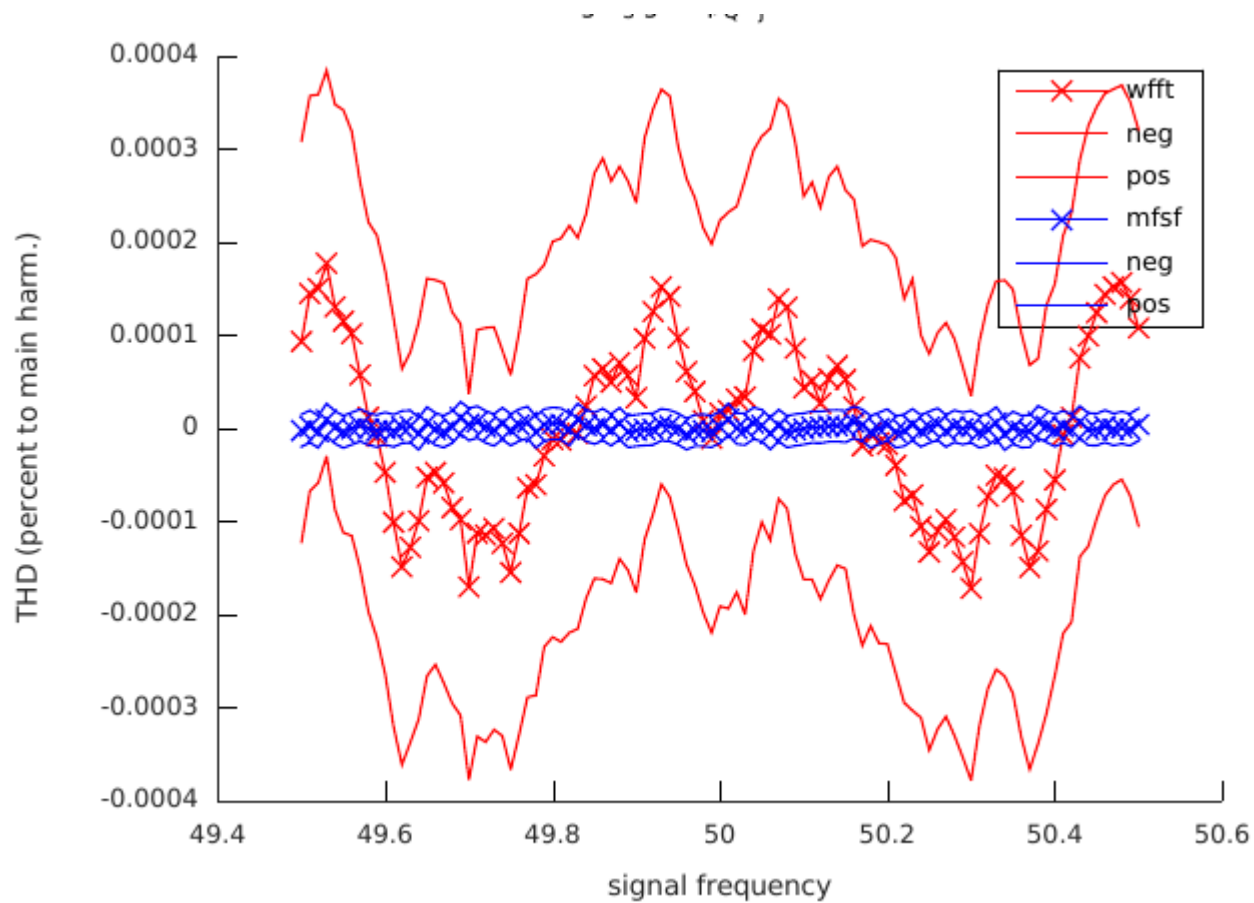
```
lut = qwtbvar('lut', jobfn, ax_set_lut, rqset_lut)
```

- Interpolation of LUT:
- inputs: LUT, interpolation point
- outputs: uncertainty

```
unc = qwtbvar('interp', lutfn, axip);
```

QWTBvar example

- Example for comparison of two algorithms:





QWTBvar example

Generation of look up table for **SFDR** algorithm:

- Preparation of waveform generator.
- Selecting values of quantities.
- Calculation of uncertainty propagation through algorithm.
- Generation of LUT and adding into the algorithm.