Chirped Mirror for Ultrashort Pulses
Abstract

In this demo we will show how to import measured chirped mirror data.
Prepare Data

original data for CM 103367

It seems that the original GDDs data are not always sorted according to wavelength. That would lead to certain difficulty for VirtualLab interpretation. Some preparation is then needed.

sorted data according to wavelength
Import of Measured Chirped Mirror Data

First import the GDDs data as a 2D data array

- Data Array Import Wizard
  - Coordinate Settings
    - Set up the coordinates of the data array here; equidistantly sampled in both x- and y-direction.
    - x-Axis: Description, Data, Physical Property: No Unit, Interpolation Method: Nearest Neighbor
    - y-Axis: Description, Index, Physical Property: No Unit, Interpolation Method: Nearest Neighbor
  - Dimensions: Sampling Distance
  - Positioning: Start Coordinate
  - Equals minimum boundary of first interval

- First import the GDDs data as a 2D data array
Further Processing of Imported Data

Convert into 1D data for later use

wavelength
GDDs
Example: Layertec 113455

- Initial spectral phase
  - Initial temporal pulse: 15.73 fs
- Spectral phase after chirped mirror
  - Temporal pulse after chirped mirror: 15.45 fs
Example: Layertec 103367

Initial spectral phase:

Initial temporal pulse:

Spectral phase after chirped mirror:

Temporal pulse after chirped mirror:

15.22fs

22.41fs
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