

## **A. Short Description**

“Spectrum image analysis tool” is a MATLAB based program to extract and analyze spectra and maps from STEM-EELS and STEM-CL spectrum images (dm3 format). A graphical user interface enables the selection of various input parameters to

- (1) present and compare EEL/CL-maps and spectra with a multitude of display options
- (2) process data (e.g. Richardson-Lucy deconvolution)
- (3) save processed maps as bitmaps or movies (“EEL/CL-map movie” option) and spectra as bitmaps or data files (tab separated txt file) for further processing.

The program can be applied on large data sets (many spectrum images) with reduced expenditure of time taking advantage of appropriate looping algorithms.

## **B. Host Location**

Summary & Download:

<http://www.felmi-zfe.at/general/downloads/>

## **C. Requirements / Platforms**

MATLAB (including Image Toolbox). There exist in addition a standalone version (no MATLAB required).

## **D. How to cite**

In case of publication of data, which were processed using the “Spectrum image analysis tool”, we ask you to cite the following paper:

F.-P. Schmidt, F. Hofer, J. R. Krenn, “Spectrum Image Analysis Tool – A flexible MATLAB solution to analyze EEL and CL spectrum images”, Micron (in press), <http://dx.doi.org/10.1016/j.micron.2016.11.004>

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