

DM Script for PCA Analysis of EELS data

A. Short Description

Principal Component Analysis script for EELS data as a DM plugin. It operates on 1D or 2D spectrum images and allows the user to select a specific energy region and the number of PCA components that need to be retained. See literature for a warning on the statistical consequences of its use.

B. Host Location

<http://portal.tugraz.at/portal/page/portal/felmi/DM-Script/DM-Script-Database>

C. Requirements / Platforms

Needs DM 3.9.0 (earlier versions might work)

D. Literature references

S. Lichtert and J. Verbeeck, "Statistical consequences of applying a PCA noise filter on EELS spectrum images.," *Ultramicroscopy*, vol. 125, pp. 35–42, Feb. 2013.

E. Restrictions / Acknowledgements

Software provided by the EMAT group of the University of Antwerp, freely distributable.