



A user-friendly free software towards radiomics

Extracting multiple parameters to make the most of medical images

C. Nioche, F. Orhac, I. Buvat

LIFEx is a **free software** for automatic measurement of a large number of features characterizing tissue types from medical images and assessing tumor heterogeneity

LIFEx can process Positron Emission Tomography (PET), Computed Tomography (CT) and Magnetic Resonance (MR) and Ultrasound (US) images

Download



- free on www.lifexsoft.org
 - CEA licence
- Please contact us for any other licence type :
contact@lifexsoft.org

LIFEx has been especially designed for radiologists, nuclear medicine physicians, oncologists, and scientists involved in *in vivo* medical imaging

Main LIFEx features

- Compatible with Windows, MacOs and Linux
- User-friendly GUI
- Connexion with Osirix or DICOM nodes
- User support / Tutorial
- DICOM format supported
- Multimodality image display
- Manual and automatic drawing of ROI
- Textural and shape features for characterizing
- Measurement of tumor heterogeneity
- Measurement of Metabolic Tumor Volume (MTV)

Conditions of use



- LIFEx is not intended for a clinical use. It is a research tool offered to the scientific community. The interpretation of the results is left to the judgment of the users.
- The use of LIFEx in any communication, be it oral or written, should explicitly mention the software as follows: LIFEx, www.lifexsoft.org, Property of CEA.

References

- C. Nioche, F. Orhac, I. Buvat. LIFEx : un logiciel gratuit pour caractériser l'hétérogénéité intra-tumorale en imagerie multimodale. J. Med Nucl, Volume 40, Issue 3, May 2016, p.208
- Orhac F, Soussan M, Chouahnia K, Martinod E, Buvat I. 18F-FDG PET-derived textural indices reflect tissue-specific uptake pattern in non small cell lung cancer. Plos One 0145063, 2015.
- Buvat I, Orhac F, Soussan M. Tumor texture analysis in PET: where do we stand? J. Nucl. Med. 56: 1642-1644, 2015.
- Orhac F, Soussan M, Maisonobe JA, Garcia CA, Vanderlinden B, Buvat I. Tumor texture analysis in 18F-FDG-PET: relationships between texture parameters, histogram indices, SUVs, metabolic volumes and total lesion glycolysis. J. Nucl. Med. 55: 414-422, 2014.

