The PyHST2 code at ESRF and the Dictionary Learning algorithm

Team

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Open source distribution (& documentation) available at:

**Dictionary Learning** Decomposition of an image into overlapping patches ensuring a smooth transition at the patches borders: this formalism applied to image denoising in CT reconstruction

**Dictionary:**
KSVD algorithm
Boy image

**Experiment:**
512*512 pixels Lena image
80 projections

FBP  DL  Difference

8*8 patches dictionary

References:

Mirone et al., *The PyHST2 hybrid distributed code for high speed tomographic reconstruction with iterative reconstruction and a priori knowledge capabilities.* NIM B (2014).