

This folder contains Matlab® data files as supplementary material for the paper *On Infimal Convolution of Total Variation Type Functionals and Applications* by Martin Holler and Karl Kunisch.

The image sequences are saved as three dimensional uint8 arrays. Typical usage is to play the video by using the Matlab ® command *implay(orig)*, where *orig* denotes the name of the video.

The folder contains three datasets which correspond to the three test cases of the paper.

The file **test_image_sequence.mat** contains

- orig: Original test image sequence.
- compressed: Standard reconstruction of MJPEG compressed version.
- tv_st_rec: Reconstruction of compressed data using TV regularization in space and time
- tv_fl_rec: Reconstruction of compressed data using TV regularization in space and in direction of a precomputed optical flow
- tgv_fr_rec: Reconstruction of compressed data using frame-wise second order TGV regularization.
- tgv_st_rec: Reconstruction of compressed data using second order TGV regularization in space and time.

The file **juggler_sequence.mat** contains

- orig: Original juggler sequence.
- compressed: Standard reconstruction of MJPEG compressed version.
- tgv_t2_rec: Reconstruction of compressed data using second order TGV regularization in space and time with a timestep of 2.
- tgv_t02_rec: Reconstruction of compressed data using second order TGV regularization in space and time with a timestep of 0.2.
- ictv_rec: Reconstruction of compressed data using the ICTV regularization in space time with $\kappa = 5$.

The file **minicooper_sequence.mat** contains

- orig: Original minicooper sequence.
- compressed: Standard reconstruction of MJPEG compressed version.
- tgv_t2_rec: Reconstruction of compressed data using second order TGV regularization in space and time with a timestep of 2.
- tgv_t02_rec: Reconstruction of compressed data using second order TGV regularization in space and time with a timestep of 0.2.
- ictv_rec: Reconstruction of compressed data using the ICTV regularization in space time with $\kappa = 5$.

The second two datasets have been obtained as a section of optical flow test datasets from <http://vision.middlebury.edu/flow/>.