

Seminarankündigung

Deformationsquantisierung

Am 22. 5. 2020 spricht um 14 Uhr c.t.

<https://bbb.durates.net/b/ste-2va-uez>

MARTINA FLAMMER

Motion and Image Reconstruction in Medical Applications

Magnetic Resonance Imaging (MRI) of the lungs proves to be difficult due to the respiratory motion appearing during the imaging process. To overcome this obstacle, a variational model that incorporates motion information in the image reconstruction is used. The motion information is obtained by determining the optical flow in the image sequence. For the image reconstruction, a radial sampling scheme is assumed and therefore the Radon transformation is used as forward operator. Additionally, the variational approach copes with strongly undersampled MRI data. In comparison to static reconstruction methods, the proposed algorithm gives better results, which was tested on a real MRI data set provided by the University Hospital in Würzburg.

gez. Stefan Waldmann