REGULARISATION WITH OPTIMAL SPACE-TIME PRIORS

TATIANA BUBBA

In this talk, I will present a motion-aware variational approach, based on a new multiscale directional system of functions called cylindrical shearlets, to reconstruct moving objects from sparse dynamic data. Compared to conventional separable representations, cylindrical shearlets are very efficient in representing spatio-temporal data, since they are better suited to handle the geometry of these data. We test our approach on both simulated and measured data, in the context of dynamic computed tomography. Numerical results demonstrate the advantages of our novel approach with respect to conventional multiscale methods.