fixed **3D** scan  $I_F$ 4D features  $f(I_F)$ 2) Correlation Layer dense displacements, coarse grid no trainable weights  $\rightarrow$  6D dissimilarity tensor D 4) Spatial transform 1) Feature CNN non-local probabilistic label shared, fine grid dim: 1-3 dim: 1-3 loss + diffusion regularisation deformable conv. moving **3D** scan  $I_M$ dim: 4-6 dim: 4-6 3) Min-Convolution & Mean-field inference 4D features  $f(I_M)$ for spatial label smoothness, acts not all search windows shown

on dimensions 1-3 and 4-6 resp.