



Supplementary Figure 2. Illustration of measurement selection during SARDU-Net training on *in vivo* prostate DRI data. As an example, the figure illustrates the selection of $D = 9$ out of $M = 16$ (b, TE) measurements. In each panel, the selector scores \mathbf{w} are illustrated as training progresses. Zero entries of \mathbf{w} are reported in white, while non-zero entries of \mathbf{w} are colour-coded and point towards measurements that are selected. Different columns refer to different (b, TE) measurements, while rows refer to different network parameter updates (here we report the first 5000 updates). Panel A (top), B (middle) and C (bottom) respectively refer to a case when training is performed leaving subject 1, 2 and 3 out as test set (training folds 1, 2, 3).