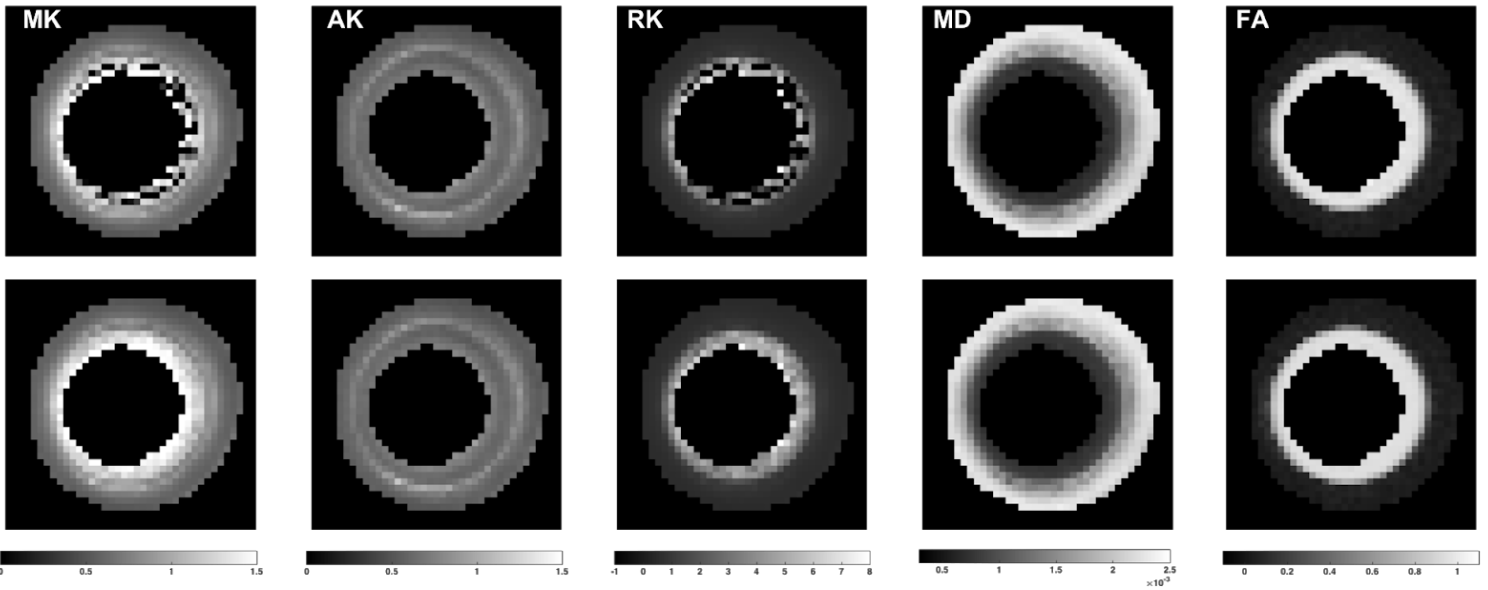
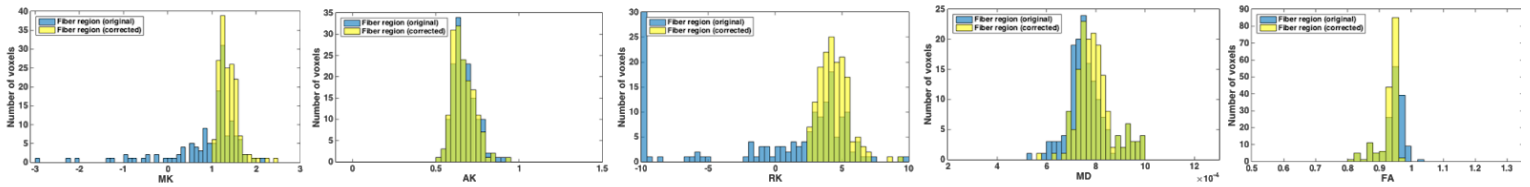


Supplementary Figure S3:

(a) Original and corrected parameter maps



(b) Histogram of parameter before and after correction



(c) Mean absolute bias before and after correction

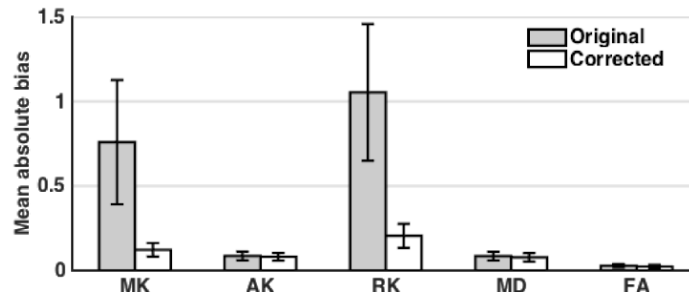


Figure S3. Correction of additional DKI and DTI parameters on the DKI phantom data. The output of the MK-curve approach is compared with the original images for the mean kurtosis (MK), axial kurtosis (AK), and radial kurtosis (RK), as well as two diffusion tensor parameter maps: mean diffusivity (MD) and fractional anisotropy (FA) (a). For each parameter map, the values are truncated to the ranges displayed on the colorbar. Apparent improvements is mostly visible on the RK map. From the histogram of RK values (b) we can see that while the peak of the distributions remained the same, negative and low RK values were eliminated. As for AK, MD and FA, the original maps did not show clear implausible values, and the corrected images were very similar, as were the peaks of the histograms. Mean absolute bias for each parameter is shown in (c) (error bars in (b) represent $\text{std}/3$). The mean absolute bias of MK is 0.759 ± 1.102 in the original data and 0.122 ± 0.120 after correction, that of AK is 0.086 ± 0.077 in the original data and 0.081 ± 0.068 after correction, that of RK is 1.054 ± 1.214 in the original data and 0.205 ± 0.213 after correction, that of MD is 0.085 ± 0.078 in the original data and 0.078 ± 0.075 after correction, and that of FA is 0.028 ± 0.031 in the original data and 0.023 ± 0.031 after correction.