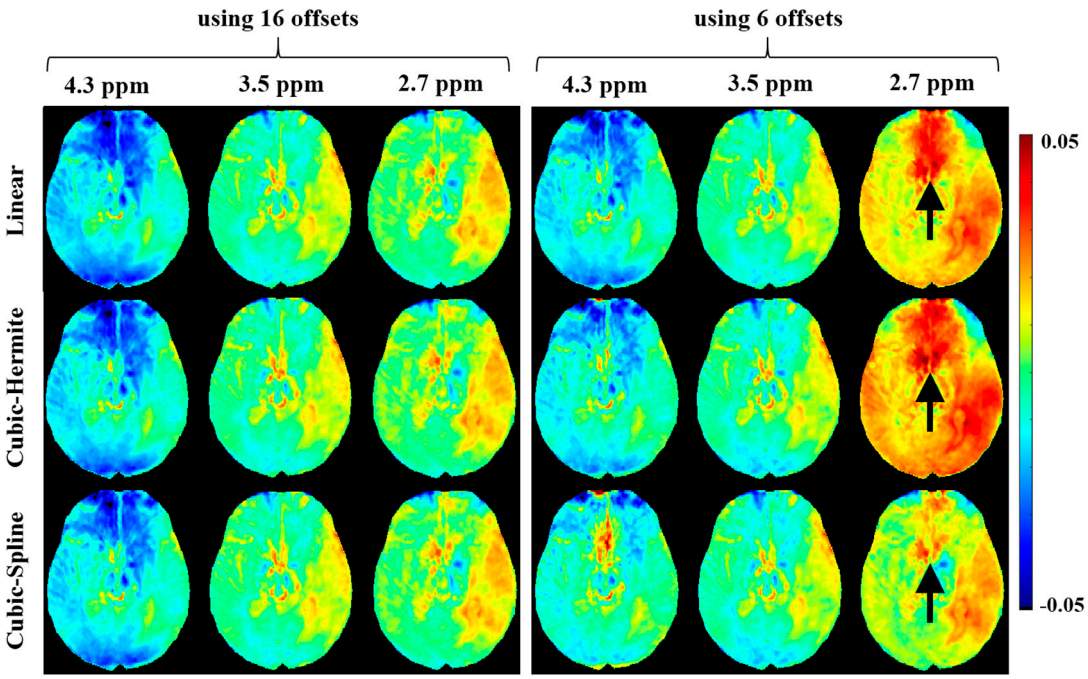

Figure S1. MTR_{asym} maps corrected employing three interpolation-based methods (i.e., linear, cubic-Hermiter, and cubic-spline), using 16 offsets and 6 offsets, respectively.

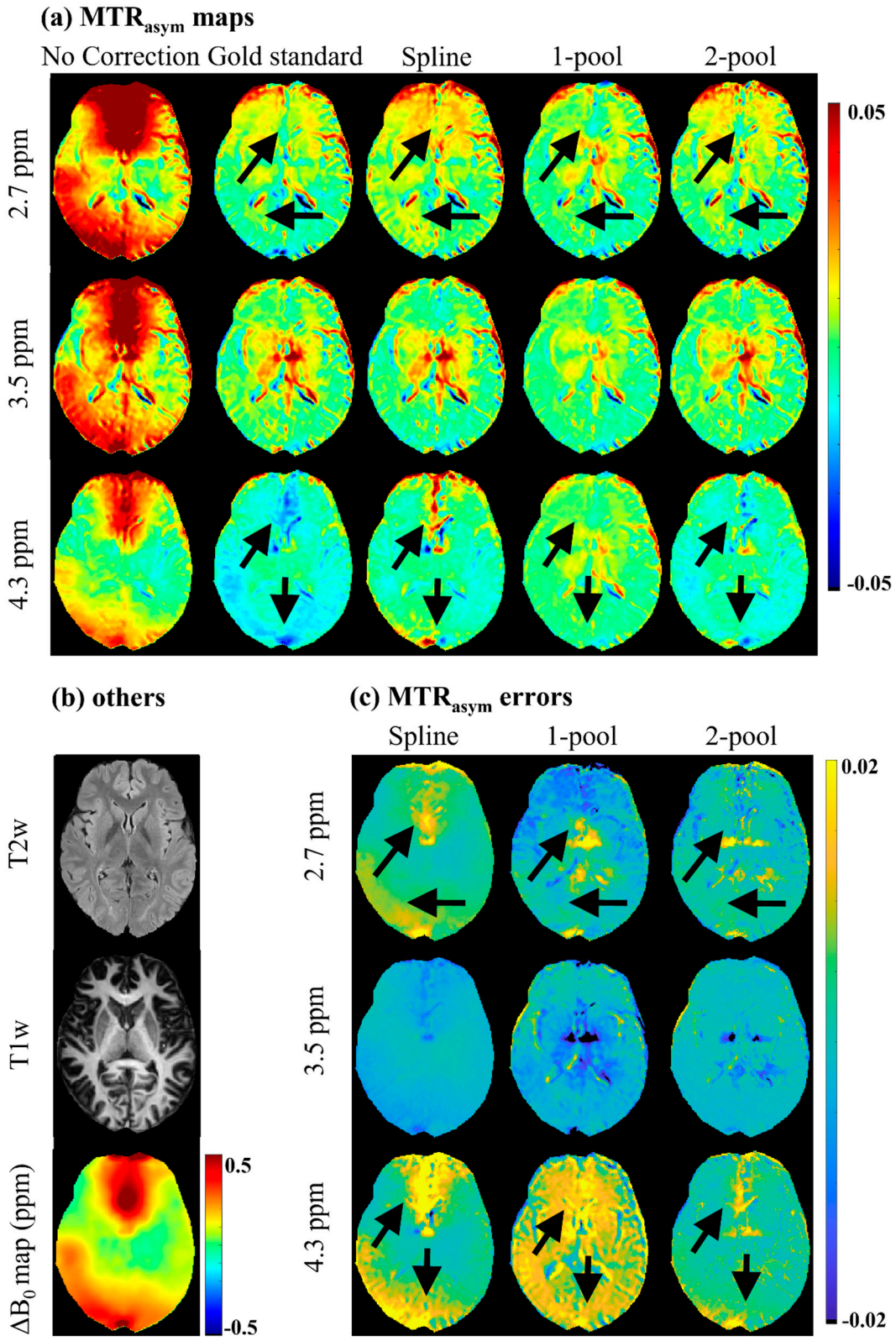

Figure S2. MTR_{asym} maps and MTR_{asym} error maps of a representative healthy volunteer. (a) MTR_{asym} maps without B_0 correction, gold standard and MTR_{asym} maps corrected using spline, 1-pool Lorentzian and 2-pool Lorentzian methods; (b) T2w, Gd-T1w and ΔB_0 map; (c) the corresponding MTR_{asym} error maps with gold standard.

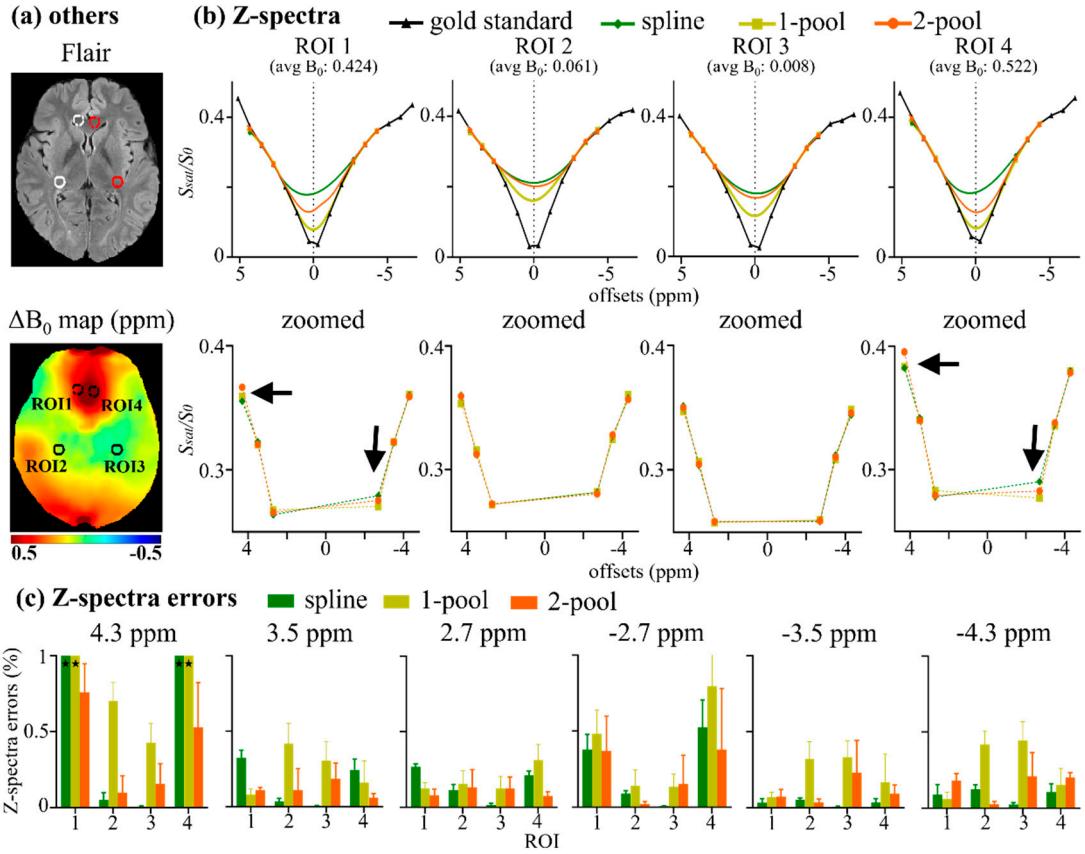

Figure S3. ROI analysis of a representative healthy volunteer. (a) Four circle ROIs (radius = 5 voxels) with different B_0 inhomogeneities, shown on T2w and ΔB_0 map; (b) mean Z-spectra of ROIs, including gold standard, and Z-spectra corrected using spline, 1-pool Lorentzian, and 2-pool Lorentzian methods; (c) the corresponding Z-spectra errors with gold standard.