

APPENDIX C - Supplementary Figures

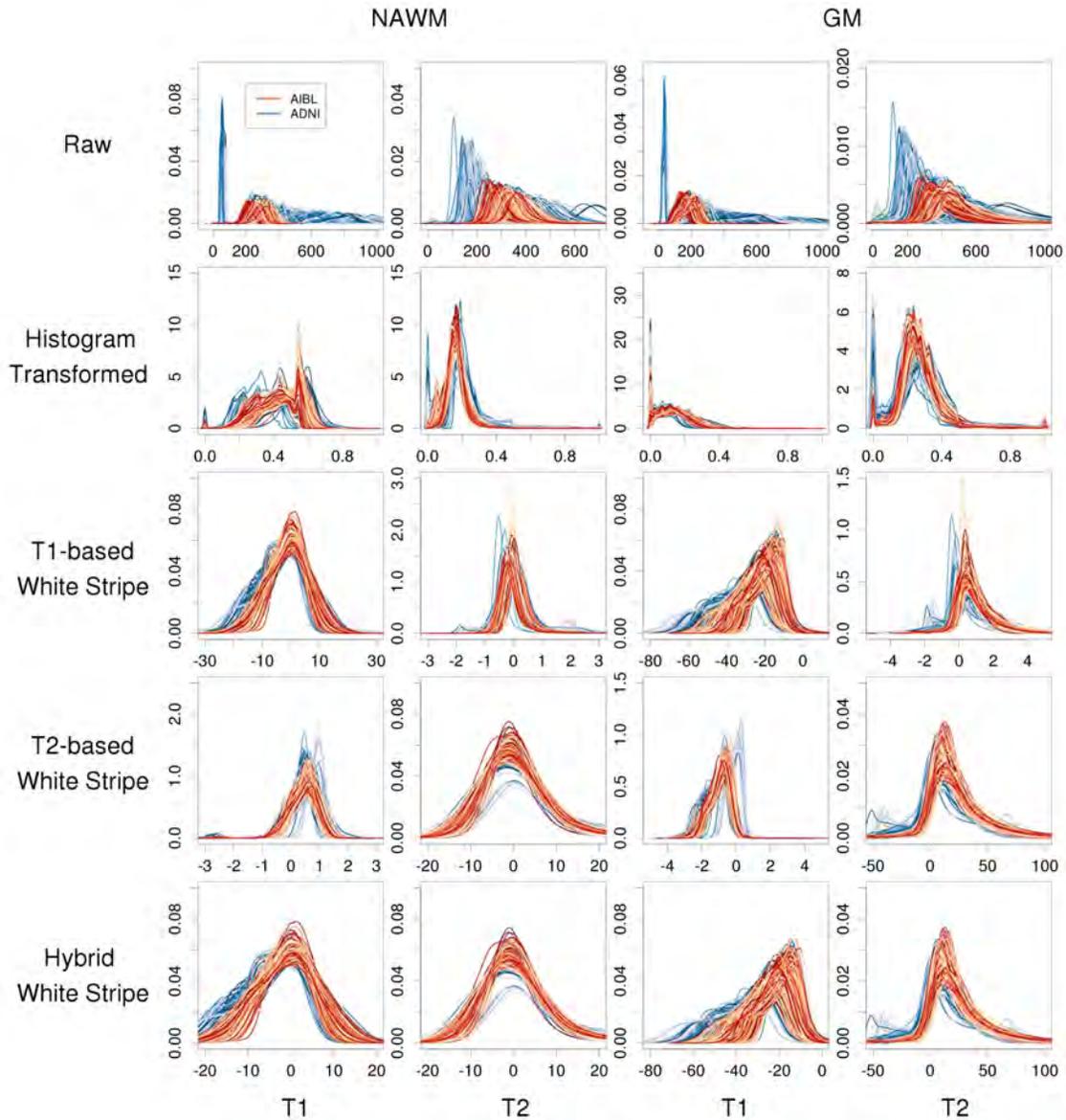


Figure A.5: Histograms of intensities before and after normalization by tissue type in normal controls in two large studies of AD. Rows indicate different normalization methods and columns correspond to MR sequence and anatomical structure.

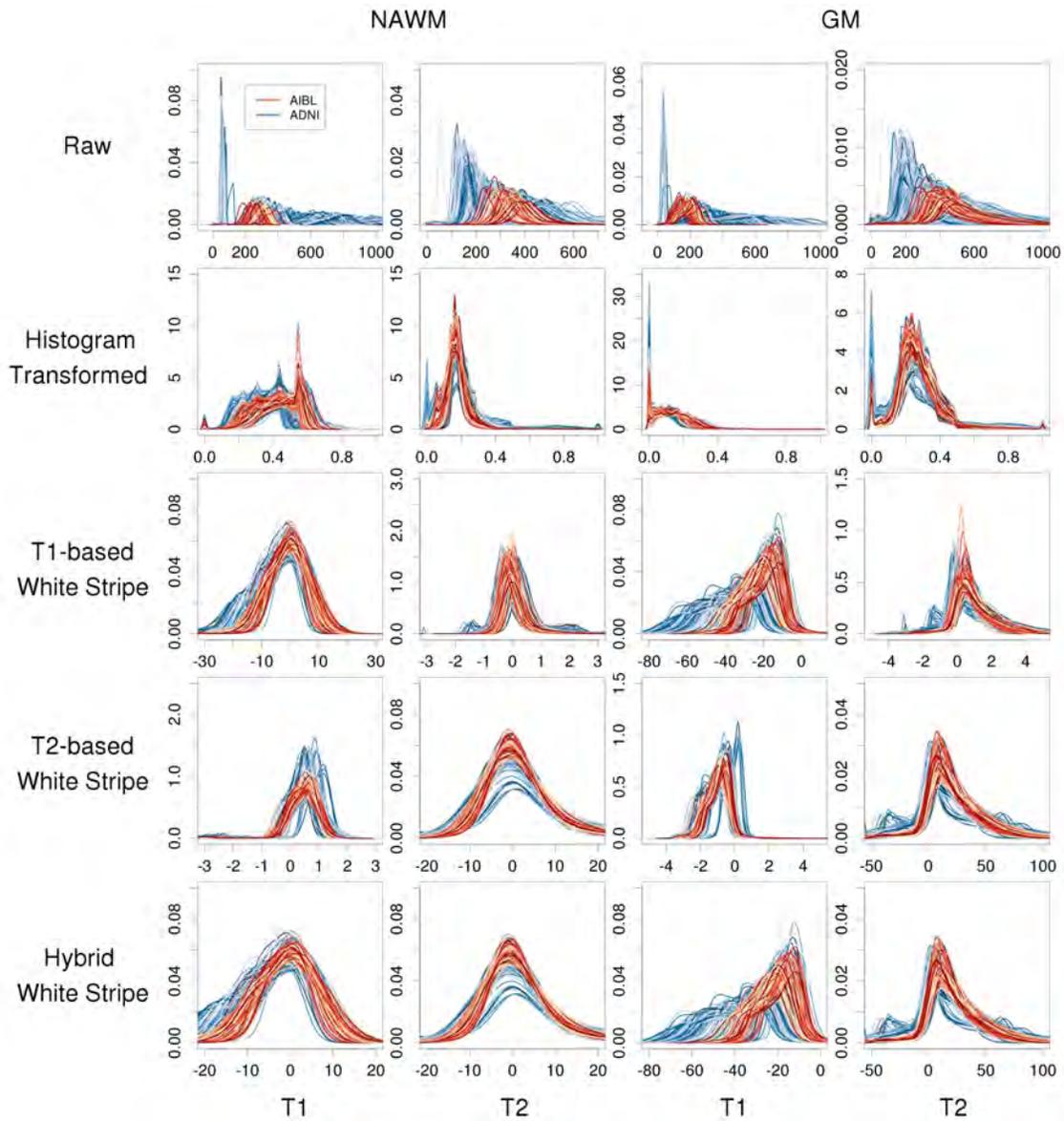


Figure A.6: Histograms of intensities before and after normalization by tissue type in subjects with MCI in two large studies of AD. Rows indicate different normalization methods and columns correspond to MR sequence and anatomical structure.

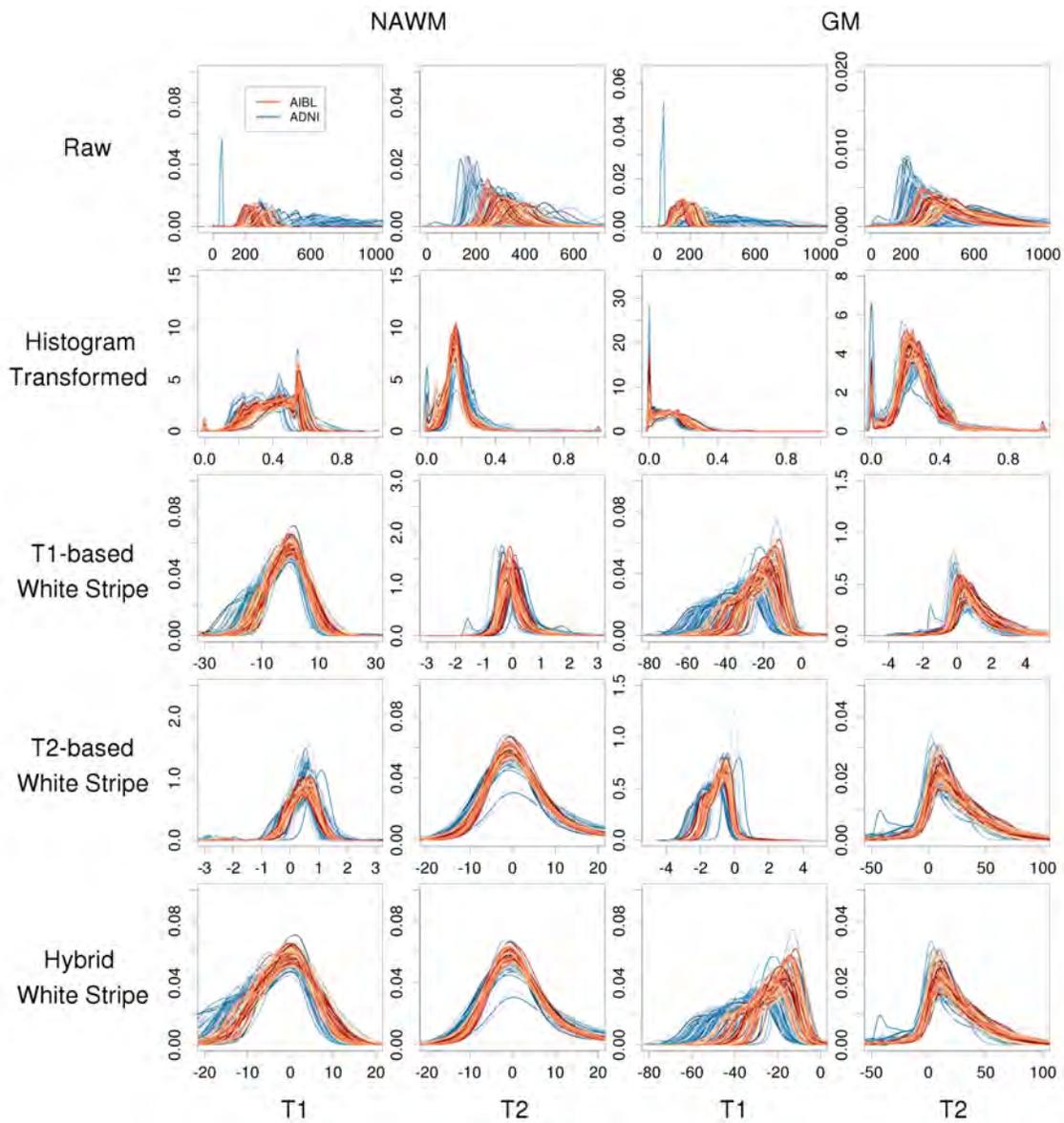


Figure A.7: Histograms of intensities before and after normalization by tissue type in subjects with AD in two large studies of AD. Rows indicate different normalization methods and columns correspond to MR sequence and anatomical structure.

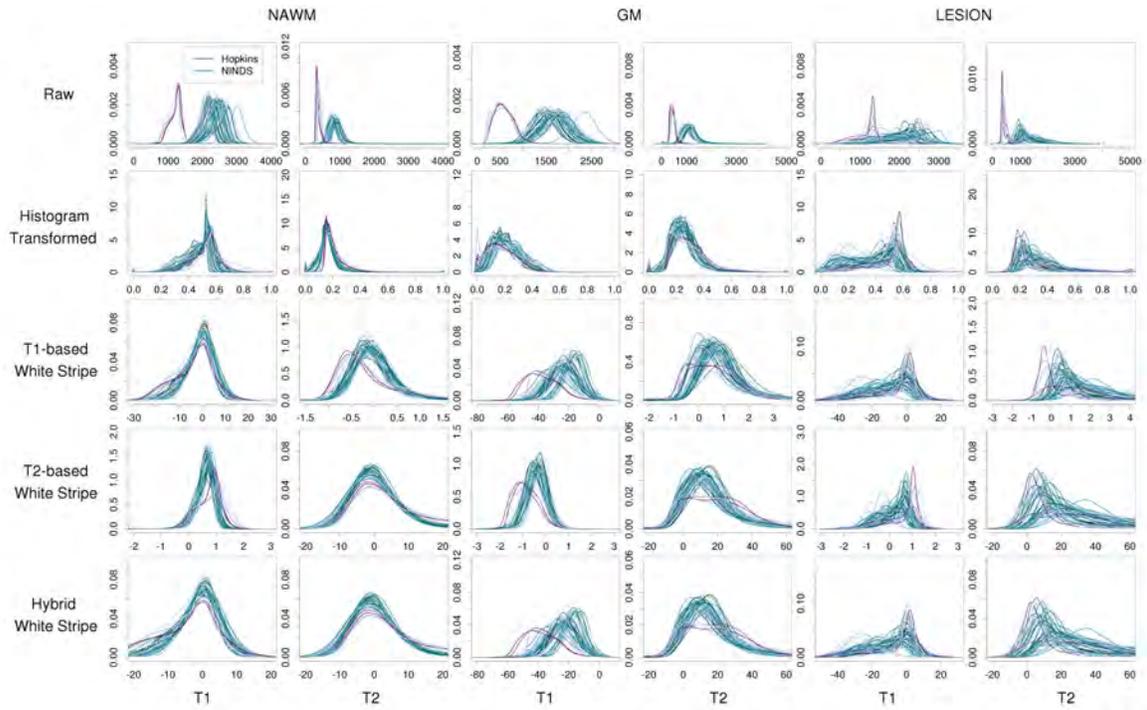


Figure A.8: Histograms of intensities before and after normalization by tissue type in subjects with lesion load lower than the median in two large studies of MS. Rows indicate different normalization methods and columns correspond to MR sequence and anatomical structure.

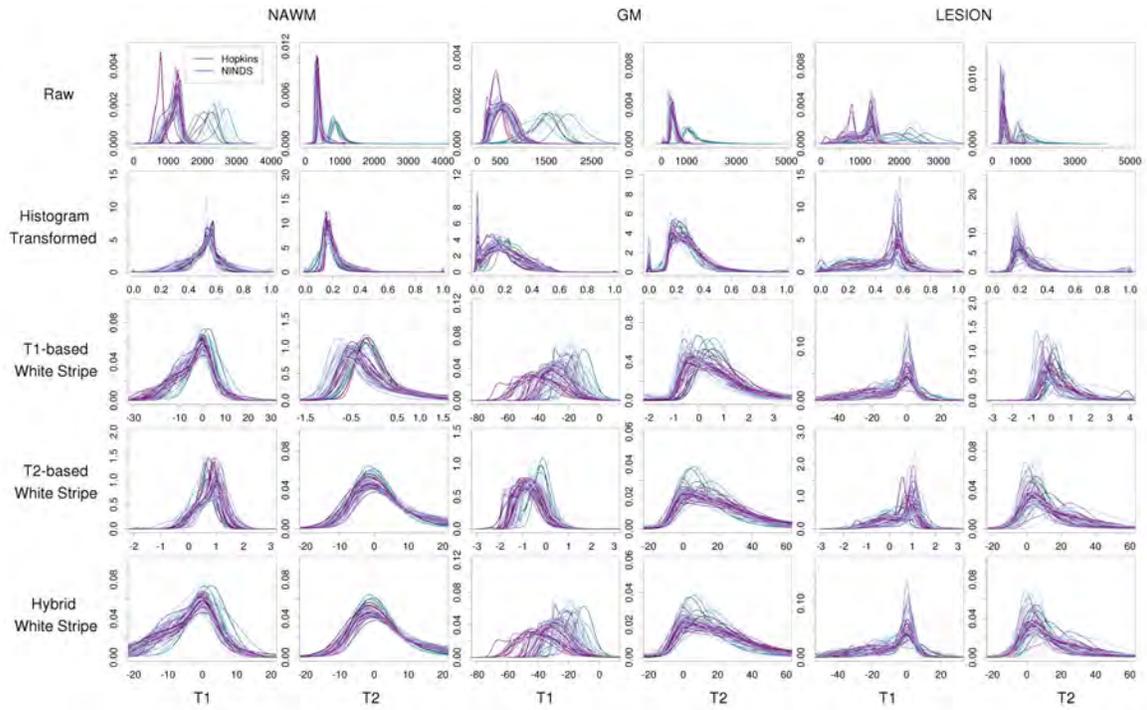


Figure A.9: Histograms of intensities before and after normalization by tissue type in subjects with lesion load greater or equal to the median in two large studies of MS. Rows indicate different normalization methods and columns correspond to MR sequence and anatomical structure.

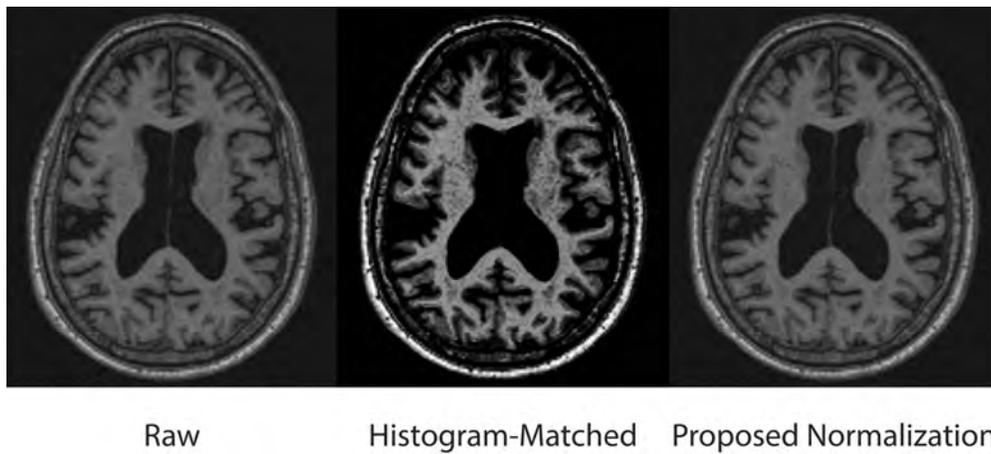


Figure A.10: Additional Example showing failure of histogram matching methods. First column: axial slice of raw T1-w image from a normal control from ADNI. Second column: image after histogram matching. Note the large proportion of gray matter incorrectly matched to background (zero intensity). Third column: image after the T1-based white stripe normalization proposed in this paper.

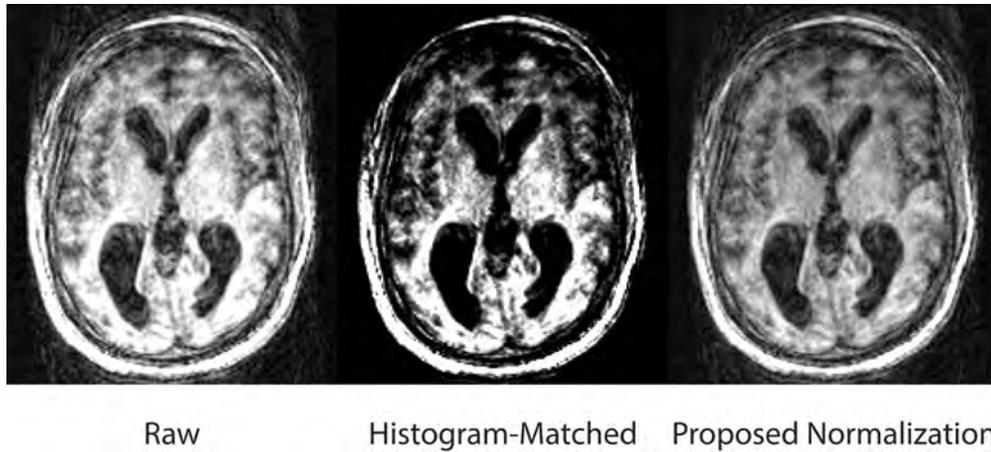


Figure A.11: Additional Example showing failure of histogram matching methods in case with motion artifact. First column: axial slice of raw T1-w image from patient with AD in ADNI. Second column: image after histogram matching. Note the large proportion of anterior brain incorrectly matched to background. Third column: image after the T1-based white stripe normalization proposed in this paper.

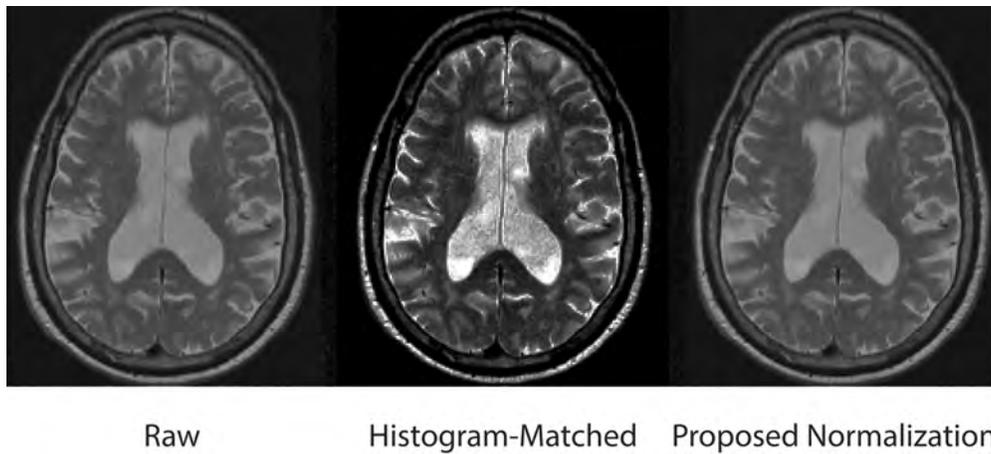
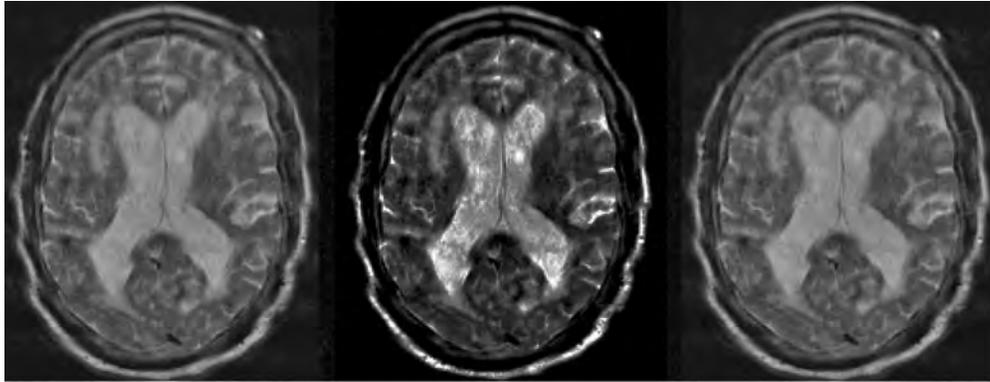


Figure A.12: Additional Example showing failure of histogram matching methods. First column: axial slice of raw T2-w image from a normal control from ADNI. Second column: image after histogram matching. Note the large proportion of gray matter incorrectly matched to background (zero intensity). Third column: image after the hybrid white stripe normalization proposed in this paper.



Raw

Histogram-Matched

Proposed Normalization

Figure A.13: Additional Example showing failure of histogram matching methods in case with motion artifact. First column: axial slice of raw T2-w image from patient with AD in ADNI. Second column: image after histogram matching. Note the large proportion of anterior brain incorrectly matched to background. Third column: image after the hybrid white stripe normalization proposed in this paper.