|  |  |  |
| --- | --- | --- |
| **Feature type** | **Image source** | **Name** |
| **Intensities** | | |
| normalized/preprocessed | FLAIR, T1, and T2 | Preprocessed |
| **Symmetric template** | | |
| template difference | FLAIR, T1, and T2 | Preprocessed |
| contralateral difference | FLAIR, T1, and T2 | ContralateralDifference |
| template location indices | FLAIR, T1, and T2 | TemplateIndicesWarped |
| **Segmentation probabilities** | | |
| Pr(cerebrospinal fluid) | T1 | BrainSegmentationPosteriors1 |
| Pr(gray matter) | T1 | BrainSegmentationPosteriors2 |
| Pr(white matter) | T1 | BrainSegmentationPosteriors3 |
| Pr(deep gray matter) | T1 | BrainSegmentationPosteriors4 |
| Pr(brain stem) | T1 | BrainSegmentationPosteriors5 |
| Pr(cerebellum) | T1 | BrainSegmentationPosteriors6 |
| **Distance maps** | | |
| cerebrospinal fluid | T1 brain segmentation | NormalizedCsfDistance |
| gray matter | T1 brain segmentation | NormalizedGmDistance |
| deep gray matter | T1 brain segmentation | NormalizedDeepGmDistance |
| whole brain | T1 brain segmentation | NormalizedMaskDistance |
| **Neighborhood statistics** | | |
| mean | FLAIR, T1, and T2 | NeighborhoodMean |
| standard deviation | FLAIR, T1, and T2 | NeighborhoodSigma |
| skewness | FLAIR, T1, and T2 | NeighborhoodSkewness |
| **Table 1:**  List of feature images used for Stage 1 of the proposed white matter hyperintensity segmentation framework. These feature images encompass salient location and intensity information used for voxelwise identification of white matter hyperintensities in TBI. The column on the right provides the names used in the software developed for this methodology and facilitates discussion of the results (cf Figure 2). | | |