

Magnetic Resonance Innovations

"Your Partner in brain image analysis"

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Perfusion Weighted Imaging

SPIN PWI is our post-processing module for **Perfusion Weighted Imaging** data. PWI is a well established MRI method for studying cerebral hemodynamics and has found various applications in tumor, angiogenesis and stroke imaging. The hemodynamic characteristics are determined by creating maps of various parameters, such as: cerebral blood flow (CBF), cerebral blood volume (CBV), mean transit time (MTT) and time to bolus peak (TTP). These parameter maps are derived from the evolution of the intensity of T2*-weighted gradient- or spin-echo, echo-planar images as a gadolinium contrast agent bolus passes through the blood vessels. Using the PWI maps, it is possible to visualize the passage of blood throughout the brain and to identify any regions of abnormal behavior. These hemodynamic parameters can be compared with data from MRA, SWI and SWIM, also processed using SPIN software.

Features and Clinical Use

FEATURES:

- * New algorithms for estimating perfusion to brain tissue
- * Easy to use interface
- * Providing error maps for each measurement
- * Compatible with multi-echo data
- * Compatible with data from a double injection procedure

CLINICAL USE:

Alzheimer's Disease, Multiple Sclerosis, Stroke and Traumatic Brain Injury.

