Development of Multimodal Quantitative MRI Techniques to Assess Microstructure in Multiple Sclerosis

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Preface

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Abstract

Résumé

Original Contributions

# *Introduction*

## Motivation

## Objectives

## Thesis Outline

# *Background*

## Radio Frequency Pulses in MR

### Pulse Generation and Measurement

This is a test sentence for references [1]. This is my second reference [2]. Here’s a 3rd references [3].

### Conventional B1 Mapping Methods

### Practical Applications of B1 Maps

## Relaxometry

### Relaxation Mechanisms

### T2 Mapping

## Magnetization Transfer Imaging

### Two-Pool Model of MT

### Pulsed Quantitative Magnetization Transfer Imaging

### Novel Magnetization Transfer Imaging Methods

### MTR and MTsat

## Multiple Sclerosis

### Neuropathology of MS

### Role of MRI in MS

### Quantitative MRI in MS

# *B1 Mapping via a Double Angle EPI Protocol: Comparison with Rapid B1 Methods for T1 Mapping Applications*

## Preface

# *B1-Sensitivity Analysis of Quantiative Magnetization Transfer Imaging*

## Preface

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