



SYSTEM AND METHOD FOR QUANTITATIVE MAPPING WITH MAGNETIC RESONANCE IMAGING

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The Invention

UW-Madison researchers have developed a novel clinical MRI method for quantitative T2 mapping. The new T2 mapping method uses RF-phase modulated dual echo steady-state sequence (DESS). T2 information is encoded into the phase of the DESS signals by using a small RF phase increment. T2 value is estimated from the phase difference between the FISP and PSIF signal of the DESS acquisition. Current magnitude based DESS method enables T2 mapping with one acquisition. However, the T2* effect, causes signal decay in magnitude, which limits the accuracy of T2 mapping using magnitude based-DESS. This new method utilizes phase rather than magnitude, which is immune to T2* signal decay. In addition, it has the potential to encode various quantitative information such as T1 and diffusion by other simultaneous changes in sequence parameters such as flip angle and the magnitude of spoiler gradients.

Additional Information

For More Information About the Inventors

- [Scott Reeder](#)

Tech Fields

- [Medical Imaging : MRI](#)

For current licensing status, please contact Jeanine Burmania at jeanine@warf.org or 608-960-9846