



## SYSTEM AND METHOD FOR IMPROVED FAT SUPPRESSION FOR DIFFUSION WEIGHTED IMAGING IN MAGNETIC RESONANCE IMAGING STATEMENT REGARDING

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### The Invention

UW-Madison researchers have developed a novel MR imaging method for use with DWI to optimize the magnetic field distribution in the presence of fat. The new method provides for acquiring diffusion weighted images (DWI) and performing a chemical-shift encoded (CSE) prescan of a subject to generate a fat image, a water image, and a B0 field map. The method also includes, for each slice or volume of a desired (DWI) acquisition from the subject, determining shim parameters that improve water signal and suppress fat signal. The method further includes performing the DWI acquisition to acquire DWI data from the subject using the shim parameters and reconstructing DWI images of the subject with suppressed artifacts induced by fat of the subject.

### Additional Information

#### For More Information About the Inventors

- [Diego Hernando Arribas](#)

#### Tech Fields

- [Medical Imaging : MRI](#)

For current licensing status, please contact Jeanine Burmania at [jeanine@warf.org](mailto:jeanine@warf.org) or 608-960-9846