

Docket #: S04-305

MRI - MRI: Generalized Image Reconstruction

Disclosed is an effective algorithm to correct motion-induced phase error using an iterative reconstruction. Using a conjugate-gradient (CG) algorithm, the phase error is treated as an image encoding function. Given the complex perturbation terms, diffusion-weighted images can be reconstructed using an augmented sensitivity map. The mathematical formulation and image reconstruction procedures are similar to the SENSE reconstruction. By defining a dynamic composition sensitivity, the CG phase correction method can be conveniently incorporated with SENSE reconstruction for the application of multi-shot SENSE DWI. Effective phase correction and multi-shot SENSE DWI (R=1 to 3) are demonstrated on both simulated and in vivo data acquired with PROPELLER and SNAILS.

Patents

- Published Application: [20070182411](#)
- Issued: [7,408,345 \(USA\)](#)

Innovators

- Roland Bammer
- Chunlei Liu

Licensing Contact

Irit Gal

Senior Licensing Manager

[Email](#)