Docket #: S06-506

MRI - An auto-calibrating parallel imaging reconstruction method from arbitrary k-space sampling

A method for obtaining an image by parallel acquisition magnetic resonance imaging (MRI) is provided. Precessing nuclear spins are excited in a region of a subject. A plurality of response signals, representing magnetic resonance signals arising from the precessing nuclear spins, are simultaneously obtained from the region respectively with a plurality of RF reception coils, with each response signal representing a reduced data set of a totality of all of said response signals. Calibration data points are additionally obtained for each data set. A filter is synthesized using the calibration data points. The synthesizing filter is applied to the reduced data set to obtain a plurality of coupled simultaneous linear equations with a plurality of unknowns. The plurality of coupled simultaneously linear equations with the plurality of unknowns is solved to obtain a complete data set.

Publications

- U.S. Application No. 12/024,919

Patents

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Innovators

- John Pauly

- Michael Lustig

Licensing Contact

Irit Gal

Senior Licensing Manager

Email