**Docket #:** S06-397

# MRI - 3D Cones Gradient Waveform Generation Software

A method of performing magnetic resonance imaging is provided. Sampling requirements are used to define a three dimensional cone trajectory differential equation. The equation is solved to obtain a starting point. A search is performed by performing a plurality of cycles, where each cycle comprises selecting a point on the cone trajectory, working backward from the starting point to reduce twist, providing a failure value if it is determined that when the twist reaches zero it is not possible to return to the origin at a final velocity of zero, and providing a success value if it is determined that when the twist reaches zero it is possible to return to the origin at a final velocity of zero. A plurality of cycles is performed, where each cycle comprises applying a magnetic resonance image excitation and scanning along the calculated cone trajectory and acquiring a readout.

## Patents

- Issued: 7,548,062 (USA)

## Innovators

- Paul Gurney

## Licensing Contact

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