



Radial Prescription of Long-Axis Slices in MRI Examinations

Principal Inventors:

Leon Axel

Vinay Manjunath Pai

Department of Radiology
NYU School of Medicine
New York University

Description of Technology:

This automated method provides a quick and accurate approach to radial prescription of long-axis slices in MRI examinations.

This method may have application to MRI studies of any organ and is not restricted by anatomic considerations. It is particularly important in cardiac examinations including cardiac cine examinations, perfusion, delayed enhancement, and magnetization tagging. In conjunction with conventional axially oriented short-axis images, the long axis images obtained in a radially prescribed fashion provide a pseudo-global map of the cardiac function being monitored and allow for more improved analysis of the extent of cardiac disease.

Current systems are limited in their capabilities as they typically require users to prescribe long-axis planes in a time consuming manual process that not only takes up valuable clinical scan time but is also an approximate technique which is prone to errors.

This method has the following important advantages over conventional methods:

- Automated.
- Independent of operator.
- Accurate and error-free.
- Fast, thereby freeing up valuable clinical scanning resources.
- Applicable to any organ of interest.
- Readily implementable in conventional clinical scanners.

These advantages make it potentially useful for enabling more studies acquiring a combination of short-axis and long-axis images, making it easier to develop 3D maps of the organ of interest.

Patent Status:

U.S. patent pending.

Contact Information:

Office of Industrial Liaison/Technology Transfer
650 First Avenue, 6th Floor
New York, NY 10016
Phone: (212) 263-8178 Fax: (212) 263-8189