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(54) Title: PULSE SEQUENCES AND FREQUENCY SWEEP PULSES FOR SINGLE-SIDED MAGNETIC RESONANCE IMAGING

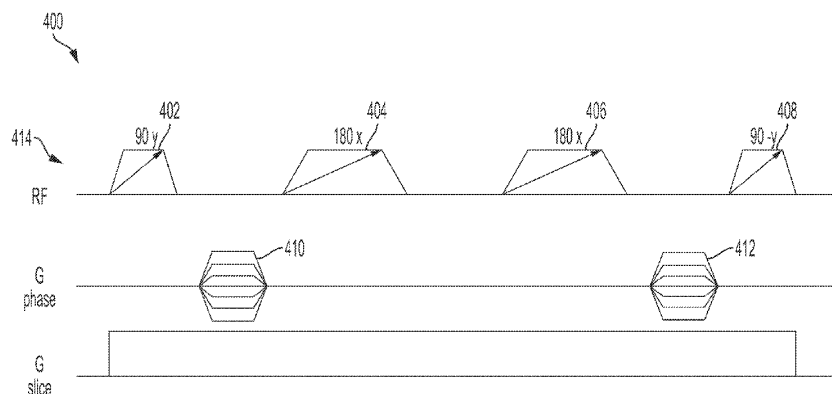


FIG. 9

(57) Abstract: Single-sided MRI scanners, systems, and methods are disclosed. A method can include applying a first sweeping frequency pulse defining an X axis; applying a second sweeping frequency pulse defining a Y axis; applying a third sweeping frequency pulse defining the Y axis; and applying a fourth sweeping frequency pulse defines a -X axis. The sweep rate of the fourth sweeping frequency pulse can be less than the sweep rate of the third and/or second sweeping frequency pulse. The sweeping frequency pulses can be chirp pulses. Frequency sweep DEFT pulse sequences can provide the benefits of a broader bandwidth and less sensitivity to the inhomogeneity of a single-sided MRI scanner.



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