



## System And Method For Simultaneous Image Artifact Reduction And Tomographic Reconstruction Of Images Depicting Temporal Contrast Dynamics

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### The Invention

Described here is a system and method for image reconstruction that can automatically and iteratively produce multiple images from one set of acquired data, in which each of these multiple images corresponds to a subset of the acquired data that is self-consistent, but inconsistent with other subsets of the acquired data. The image reconstruction includes iteratively minimizing the rank of an image matrix whose columns each correspond to a different image, and in which one column corresponds to a user-provided prior image of the subject. The rank minimization is constrained subject to a consistency condition that enforces consistency between the forward projection of each column in the image matrix and a respective subset of the acquired data that contains data that is consistent with data in the subset, but inconsistent with data not in the subset.

### Additional Information

#### For More Information About the Inventors

- [Guang-Hong Chen](#)

#### Tech Fields

- [Medical Imaging : X-ray](#)

For current licensing status, please contact Jeanine Burmania at [jeanine@warf.org](mailto:jeanine@warf.org) or 608-960-9846