System And Method For Determining Dynamic Physiological Information From Four-Dimensional Angiographic Data

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The Invention

A system and method are provided for generating time resolved series of angiographic volume data having flow information. The system and method are configured to receive angiographic volume data acquired from a subject having received a dose of a contrast agent using an imaging system and process the angiographic volume data to generate angiographic volume images. The angiographic volume data is processed to derive flow information by determining a distance between two points along a vessel in the angiographic volume images and determining a phase at each of the two points along the vessel in the angiographic volume images. A flow direction or a velocity of flow within the vessel is determined using the distance between the two points along the vessel and the phase at each of the two points along the vessel.

Additional Information

For More Information About the Inventors

- Charles Mistretta

Publications

- Shaughnessy G., Schafer S., Speidel M. A., Strother C. M. and Mistretta C.A. 2018. Measuring Blood Velocity Using 4D DSA: A Feasibility Study. Med. Phys. [Epub] doi: 10.1002/mp.13120

Tech Fields

- Medical Imaging : X-ray

For current licensing status, please contact Jeanine Burmania at jeanine@warf.org or 608-960-9846