



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

[View U.S. Patent No. 10,134,144 in PDF format.](#)

**WARF: P160068US01**

Inventors: Charles Mistretta, Charles Strother, Gabriel Shaughnessy

### 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](mailto:jeanine@warf.org) or 608-960-9846