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## METHOD FOR MULTIMODALITIES FUSION OF ECHOCARDIOGRAPHY AND CARDIAC COMPUTED TOMOGRAPHY



### ▶ MORE INFORMATION

#### MEGA-TREND

- Healthcare

#### TECHNOLOGY READINESS LEVEL (TRL)

- TRL 3

#### PATENT/ GRANTED NUMBER

- PI 2017703408

### ▶ TECHNOLOGY OVERVIEW

The present invention disclosed a method for multimodalities fusion of echocardiography and cardiac CT to aid the diagnosis of aortic valve diseases and provide surgical guidance during transcatheter aortic valve replacement (TAVR) and transcatheter aortic valve implantation (TAVI). The method for multimodalities fusion of echocardiography and cardiac CT according to the present invention comprising steps of: performing Cardiac CT data acquisition with standard clinical acquisition protocol to acquire Cardiac CT images performing 2D time series echocardiography scanning with standard

clinical acquisition protocol to acquire echocardiography scanning images, performing temporal synchronization to align echocardiography scanning images and Cardiac CT images in time since both modalities produce images of different sampling latencies and temporal resolution, and performing spatial registration by applying a rigid geometrical transformation to the selected 2D planar echocardiography images to spatially align with the static cardiac CT volume using intensity-based registration algorithm.

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## CONTACT US!

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