

# Reconstruction of ultra-fast 3D ultrasound echocardiographic sequences

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*Miaomiao Zhang, supervised by Denis Friboulet, Olivier Bernard and Hervé Liebgott, 2014*

3D echocardiography developed rapidly in the last years. Different techniques (parallel receive beam forming, ECG gated stitching and real-time zoom) are developed to improve the frame rates, but the frame rate cannot be increased significantly. Ultrafast imaging based on plane wave is a recent area of research thanks to its capability of reaching frame rate higher than a thousand of frames per second. The main objective of the PhD project is to reconstruct ultrafast 3D ultrasound echocardiographic sequences using plane wave without reducing the image quality.