Collaboration Group: Cardiac Arrhythmias
The CARMA Team
The CARMA AF Workflow
Implementing the Workflow
Fibrosis Analysis
Updates

Original Investigation
Association of Atrial Tissue Fibrosis Identified by Delayed Enhancement MRI and Atrial Fibrillation Catheter Ablation
The DECAAF Study

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Refinement of Fibrosis Quantification

Category Change Comparison

![Graph showing category change comparison between Full and Reduced categories.](image-url)
Automated Segmentation

Case 1
Case 2
Case 3

2 mm

4 mm

8 mm
Shape Analysis

LA Shape Change over Time

LA Shape

LAA Shape

Ross Whitaker

Josh Cates

Hannah Tredway

LA Shape Change over Time
Patient Specific Models of AF

Josh Blauer

Natalia Trayanova

Kathleen McDowell
Simulation of Catheter Sensing
Simulation of Catheter Sensing
What Next?
Build on Strengths

Shape Analysis  Registration  AF Simulation

Visualization of structure during treatment

Fluoroscopy
More Growth

DECAAFII

Clinical Validation of VEPL

BSPM & Inverse Solutions

Cardiac Arrhythmias: Multimodal Assessment Integrating Body Surface ECG Mapping into Cardiac Imaging

Early
Late
Early
Late
Early
Late

This study was approved by the institutional review board, and all patients gave written informed consent. Twenty-seven patients referred for electrophysiologic procedures in the context of ventricular tachycardia (VT) (n = 8), Wolf-Parkinson-White (WPW) syndromes (n = 2), atrial fibrillation (AF) (n = 13), or narcolepsy-related ventricular arrhythmias (VRS) (n = 3) were enrolled. Patients underwent...