1106-VC-2575   **Emily Hendryx*** (`emily.hendryx@rice.edu`). *Using Variants of Dynamic Time Warping to Identify ECG Features in Congenital Heart Disease.* Preliminary report.

In the clinical setting, bedside monitors present physicians with large amounts of physiological data. Interpreting the entirety of this information in real time for clinical decision support purposes can prove to be quite a challenge. This work approaches one aspect of this big data problem by detecting features of the electrocardogram (ECG) signal for prediction of cardiac arrest in patients with congenital heart disease. In doing so, variants of the dynamic time warping algorithm are used for comparing segments of ECG time series on a beat-by-beat basis. These methods produce a mapping between the indices of two segments, minimizing the error between the time series and providing a distance measure for use in segment classification. (Received September 16, 2014)