SEMINARIO

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Mathematical and Statistical modelling using the FMM approach.
The case of the Electrocardiogram

Abstract: Oscillatory systems arise in the different biological and medical fields. Mathematical and statistical approaches are fundamental to deal with these processes. The FMM (Frequency Modulated Mobius) approach, is one of these approaches that competes with the Fourier and Wavelets decompositions. Little known as it has been recently developed, solves a variety of exciting questions with real data; some of them, such as the decomposition of the signal into components and their multiple uses, are of general application others are specific. Among the exciting specific applications is the analysis of electrocardiograms. The electrocardiograms are mostly used as diagnostic tools, since an irregularity in any of those measurements could indicate a heart condition. However, interpreting the signals is not easy, even for trained physicians. The FMM_{ecg} model, separately characterize the five fundamental waves of a heartbeat. It does so by generating parameters describing the wave shape of a heartbeat, in a similar way a physician would do manually. Diagnostic results are then calculated automatically from that data.

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Online: https://teams.microsoft.com/l/meetup-join/19%3ameeting_YTkyMGY3Y2YtYTkzOS00NmJkLTllMGItNzkwODcyZGIxOTdk%40thread.v2/0?context=%7b%22Tid%22%3a%22cea1ea3e-60b2-4f75-a6c2-a6022e8f961b%22%2c%22Oid%22%3a%2202da51d6-b062-4337-a78d-1d466ceadb29%22%7d