**HR Time Series Model**

The aim is to model trends and cycles in the inter-beat interval (IBI) time series data across an entire night. The current and proposed approaches are summarized in the block diagram shown in Figure 1.



Figure . IBI Time Series Modelling.

Currently, a linear regression model has been applied on the complete and raw IBI Time Series. The blocks shown against a gray background correspond to work in progress (IBI Time Series Segmentation, Data Smoothing) or proposed and be further discussed.