

In the context of TBM, we will define anomaly detection as the detection of physical event that will provoke an unsolicited degradation of a given efficiency function. Where an efficiency function is some function that converts the machine state to a value that wants to be maximized by the user.

One can prove that this definition is a special cases of the labeling one, by labeling the decrease of the given efficiency function and retroactively the time series of sensors witch where influenced by the root cause event.