From Wim Van Ackooij, EdF R&D (French Electricity) March 22, 2007

An interesting RMM question would be the following:

We dispose of some signal, that we observe for each time step (a time series). This signal can be heavily perturbed by external events (such as political decisions) and change forever its characteristics. Moreover the signal has a clearly observable and easily identifiable seasonality.

Furthermore we dispose of some model for this signal and we can "simulate" its evolution. Thus doing so, we obtain for each future time step a distribution of possible values.

How can we test if the obtained distribution per time step is valid? Once we have observed the signal we dispose of a single realization per time step. Can we for instance neglect causality issues and use neighbouring points of the observed signal to validate the distribution?