Mixture model

Mixture model is composed of several model (components) and model of the pointer (discrete process whose values indicate the actually active component).

Components can be continuous, discrete or state-space with various distributions. Their pdf (pf) is

$$f_j\left(y_t|v_t,\theta,\alpha\right)$$

where y_t is the target variable, v_t is a vector of explanatory variables, θ is parameter of the components, α is parameter of the pointer model.

Pointer model can be uniform or categorical mostly static with the pdf

$$f\left(c_t=j|\alpha\right)=\alpha_j$$

where c_t is the pointer variable, j is a realization of the pointer (presently active component).

Generation

First generate value of the pointer (the label of the active component) and then with the corresponding component generate the output.

Program and its description

Back to Main