

## Choose your Model wisely (Pen & Paper)

Fig. 1 shows 4 different data sets (A-D). Suggest a prediction model for each dataset such that the model is able to predict the dependent variable for an unseen sample given the sample's "Attribute 1"- value. Prefer simple models over complex models (complex models have many parameters and are more expensive in computation but are often more precise).

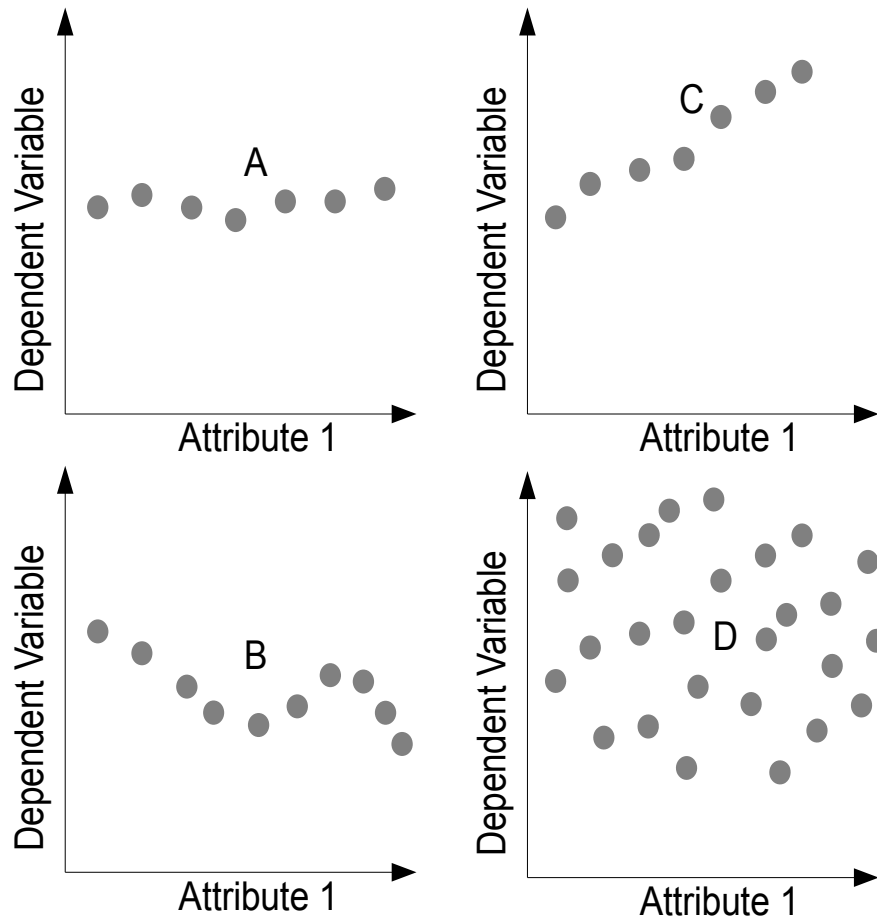


Fig. 1

## Global Minima of the Model Space

Find the best model parameters for an unknown prediction model: Unfortunately, neither the domain, nor the meaning of the two-parameter-model is known. Only the error function is available which calculates an error value given the two model parameters.

- Extract the directory BlackBox of the file "Lecture2.zip" and call the error function "blackBoxFunc.m" passing two parameters
- Find the point in the model space (the respective values of the model parameters) for which the error is minimal.
- Report the number of function calls you needed and describe your strategy of scanning the model space.

