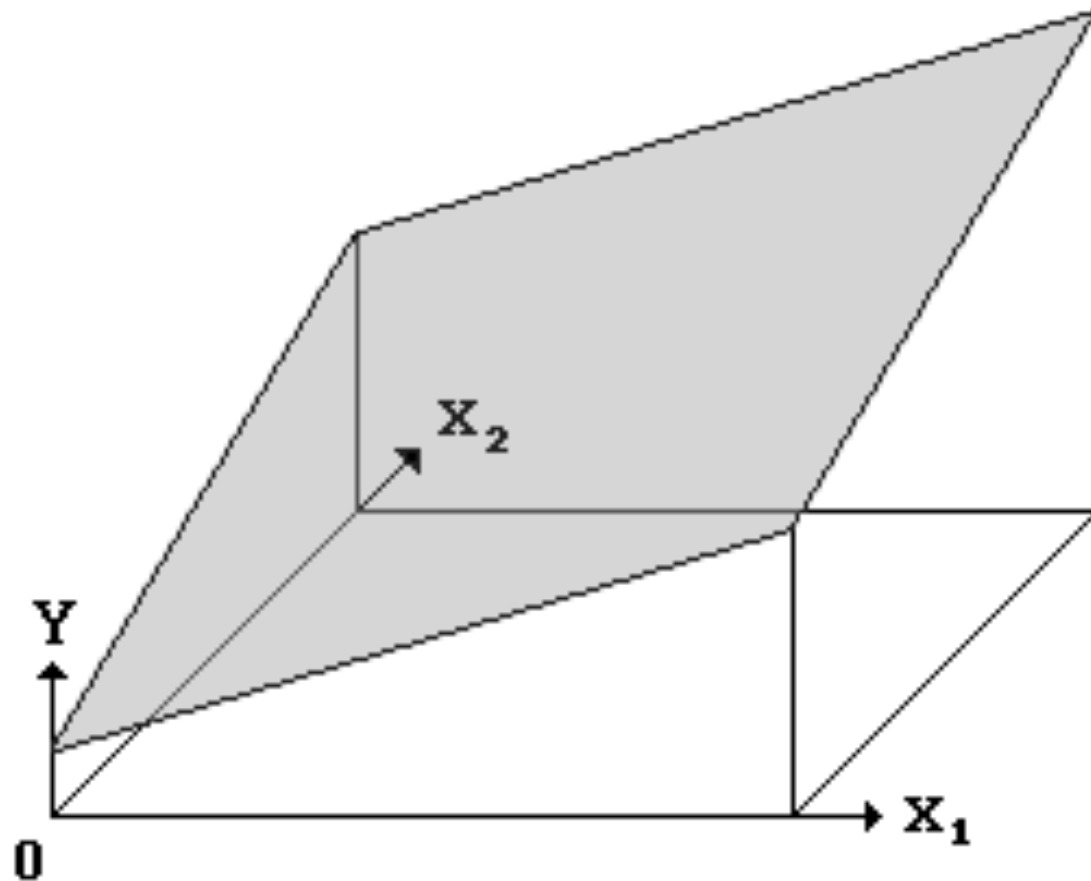
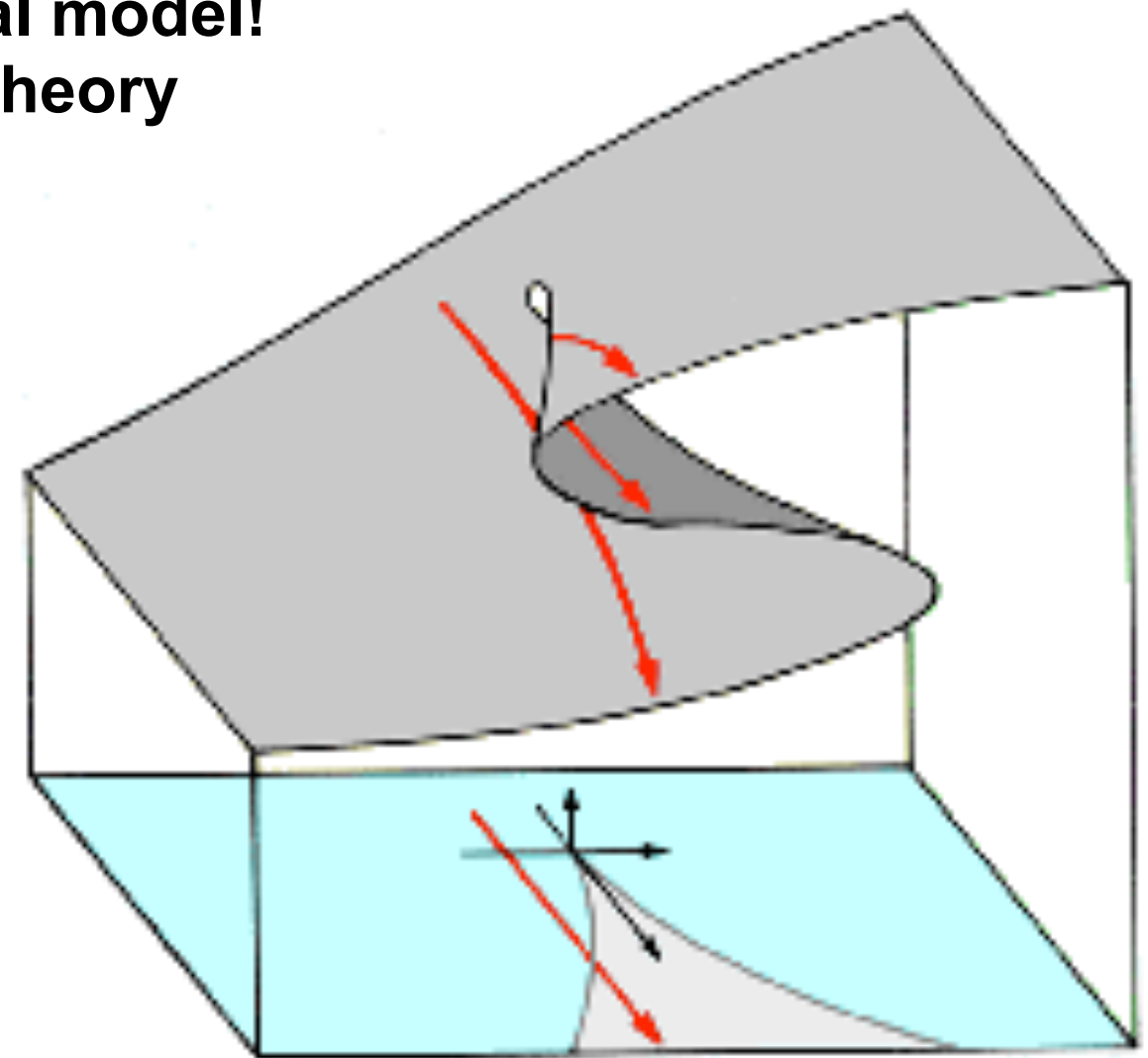


Linear vs. Dynamic models... fitting a response surface

same tools!
same general model!
different theory



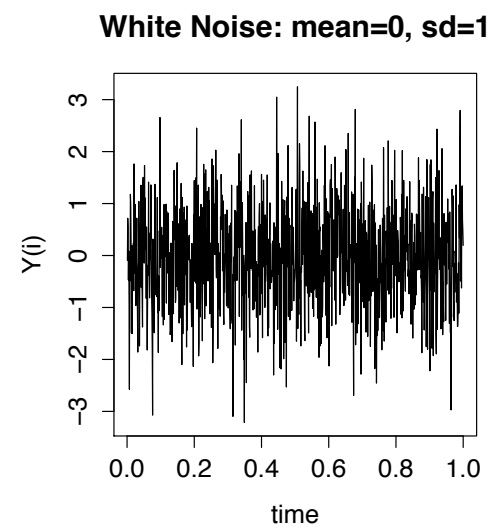
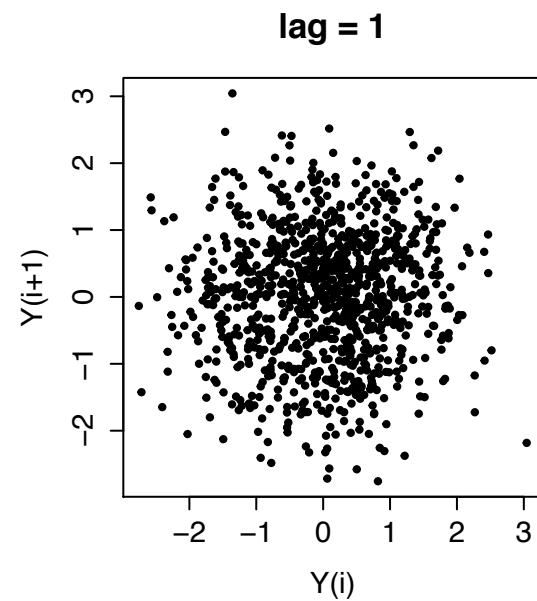
$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$



$$Y = \beta_0 + \beta_1 X_{\text{control}} + \beta_2 X_{\text{bifur}} * Y + \beta_3 Y^2 + \beta_4 Y^3$$

Y is entered as a predictor

Return plot quiz



White noise
Completely random
(Gaussian distribution)

What happens at different lags?