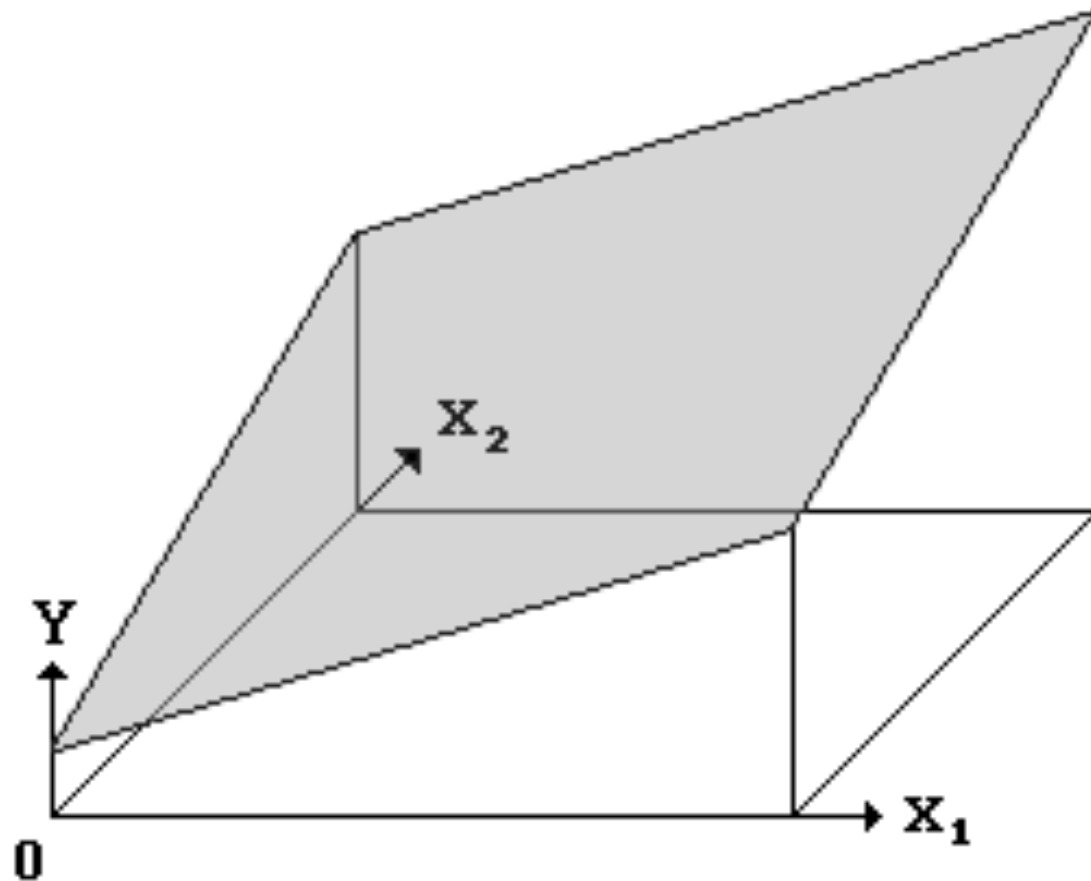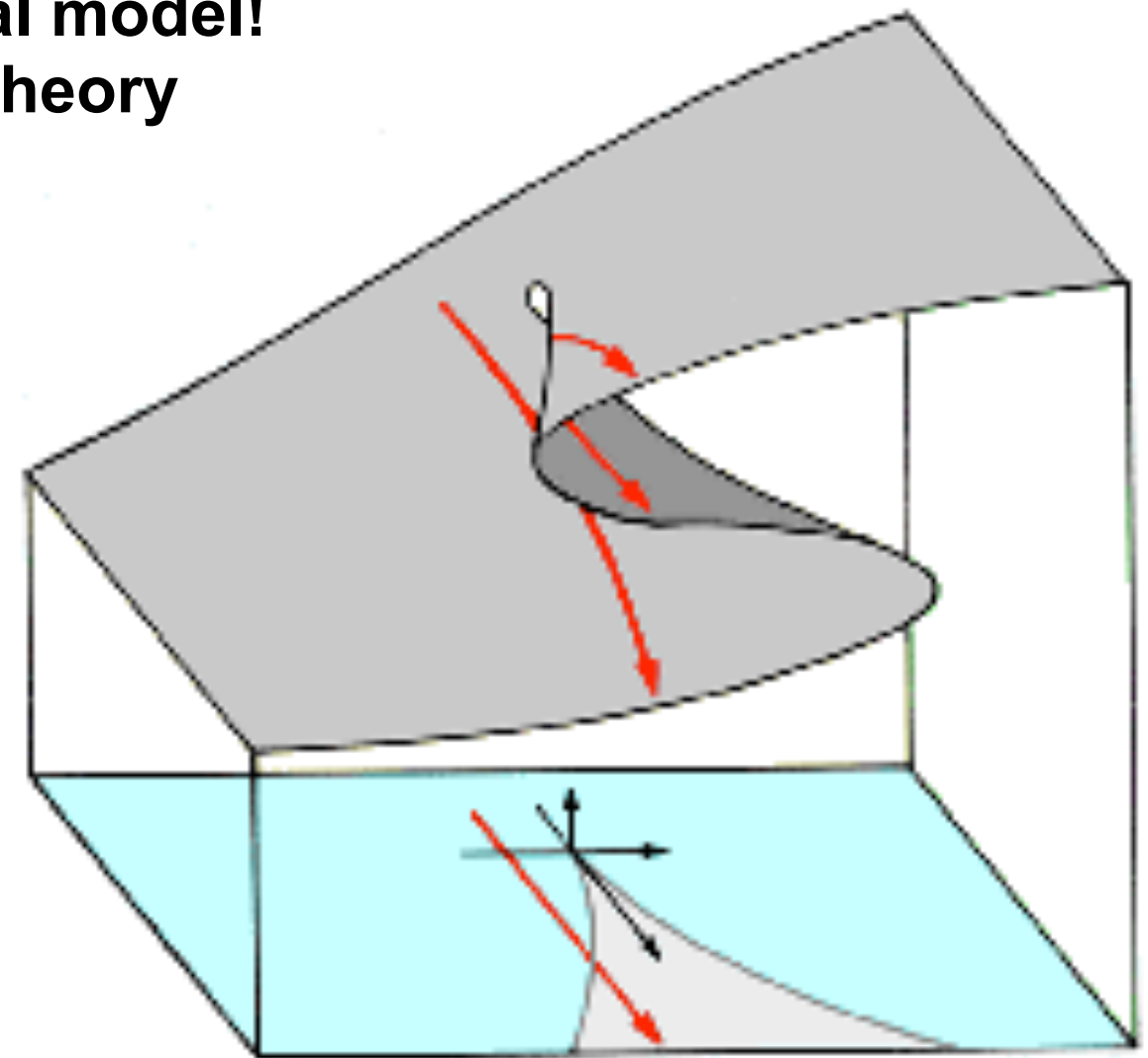# Linear vs. Dynamic models… fitting a response surface

same tools!
same general model!
different theory

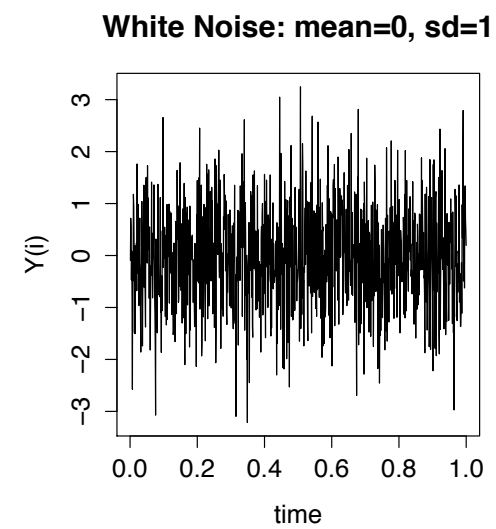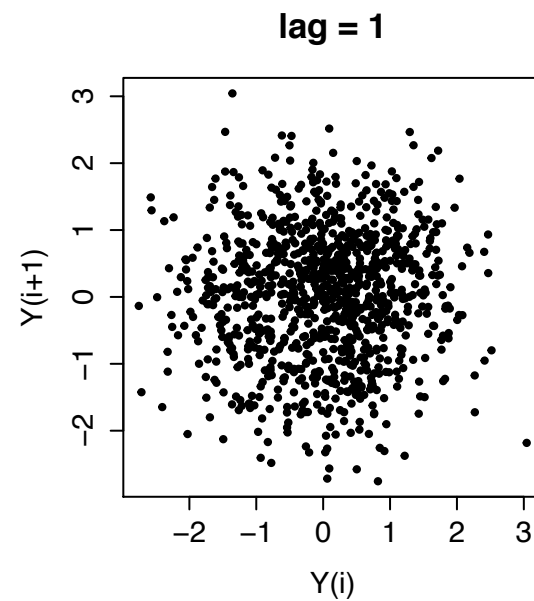$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

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

Y is entered as a predictor

Return plot quiz

White Noise: mean=0, sd=1

White noise
Completely random
(Gaussian distribution)

lag = 1

What happens at different lags?