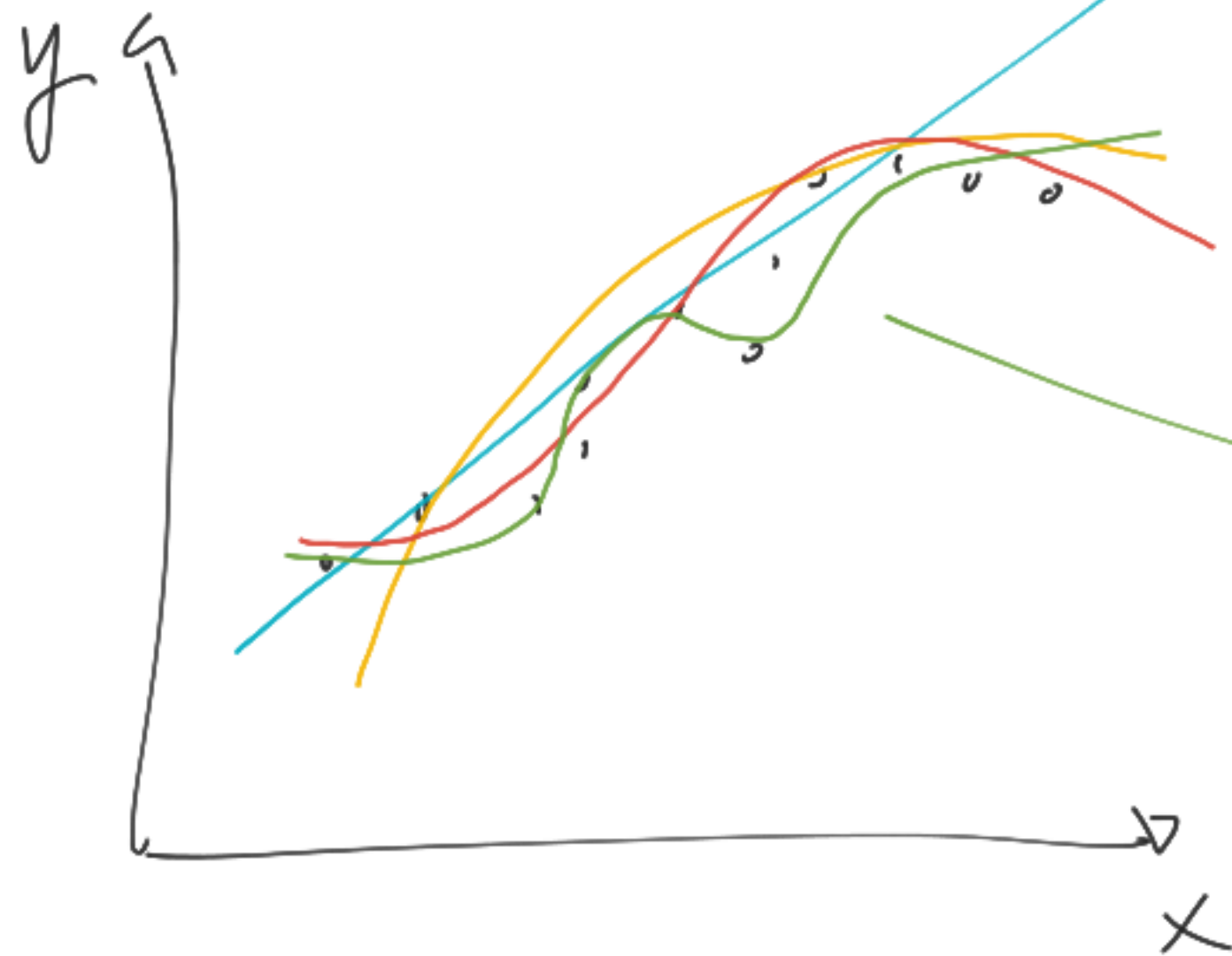# MODEL SELECTION — PARSIMONY INDEX

univariate
Regression
problem

lines $y = a + bx$

quadratic $y = a + bx + cx^2$

3rd order a, b, c, d

4th order a, b, c, d, e

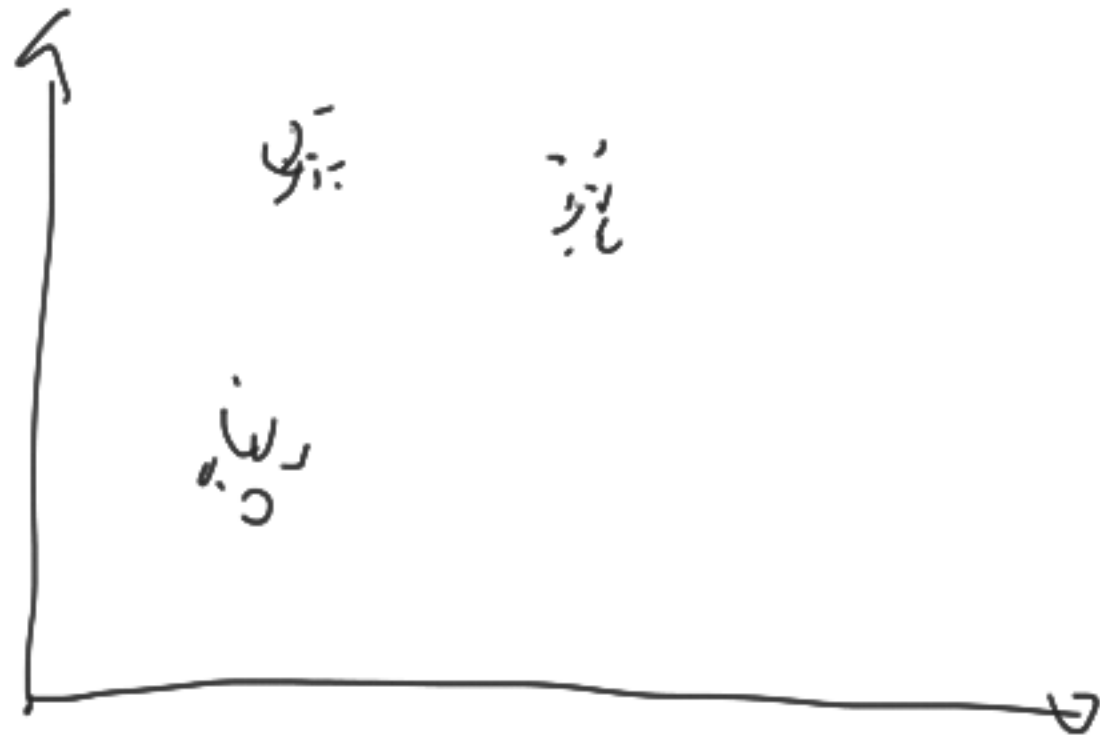Parsimony Index $\sim$ ERROR residuals (MSE)   VS   COMPLEXITY PENALTY #parameters

AIC
BIC

GMM + BIC model selection → How many cluster?

GMM G	ERROR	#PARAM	BIC
1	0	0	
2	0	0	
3	0	0	
4	0	0	
⋮			
NG			

best model
maximum BIC