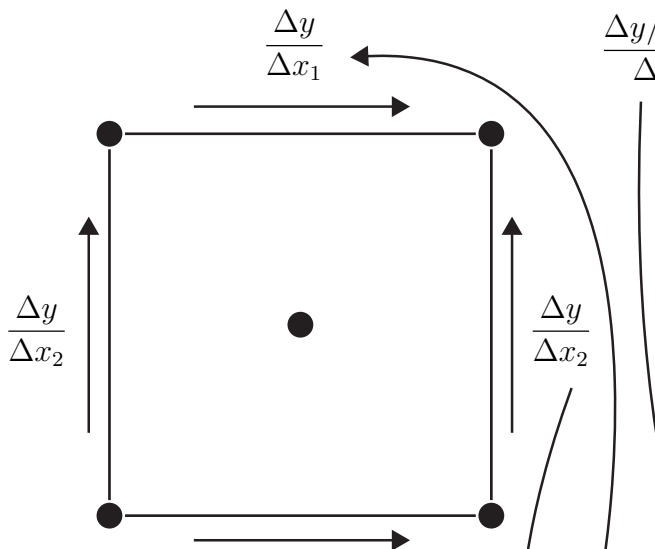
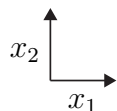
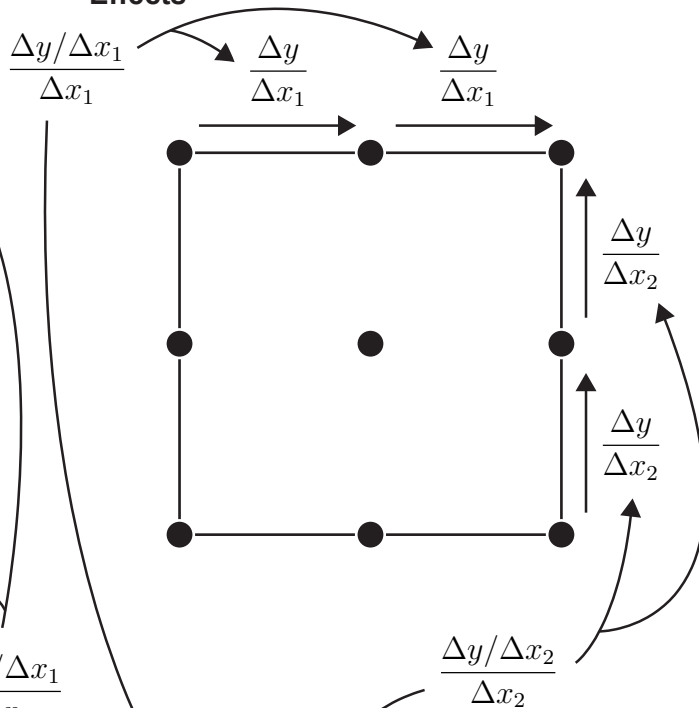


Design to Estimate Main and Interaction Effects



Design to Estimate Quadratic Effects



$$\hat{y} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_1 x_2 + \beta_4 x_1^2 + \beta_5 x_2^2$$

mean
response

main effects

interaction
effect

quadratic effects

*Replicates at center points permit an estimate of response error.