Self-study - week 13

Design of experiment (DOE): two-level factorial design

1. Read and study the following. Estimation (including distribution of the estimators) of parameters and effects (it is the same since $Effect = 2\beta$) in 2^3 and generally in 2^k experiments ([T], pp. 5-7; [Notes], pp. 79-81). Estimation of σ^2: method based on the assumption of zero effect of higher order interactions; Lenth's method. Inference about effects. ([T], pp. 9-13; [Notes], pp. 81-83).

2. Read and study Fractional factorial design (2^{k-p} design) ([T], pp. 20-21, 24-25; [Notes], pp. 83-84; [Slides]).

3. Study Example (2019, Problem 2). First try to solve yourself, then read solution in the table "Table of previous exams".

4. Read and study Blocking ([T], pp. 15-16; [Notes], pp. 84-86; [Slides]).

5. Ask questions if any.