

# Presentación

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15/07/2021

## Presentation

This Shiny application presents different ways of applying the methodology to add points to a design with controlled efficiency for a number of different models. The aim is to provide an interactive tool that demonstrates the methodological procedures experimenters can follow in order to modify or enhance their designs.

The working of the app is as follows

- The user should first decide the model to be used and the associated parameters- at least the space of the design- in Set-Up & Optimal Design. The user should then calculate the optimal design for their choice.
- Custom Design is one of the subsequent choices.
  - In Design Proposal, the user chooses the weight to give to new points and a consequent efficiency, and the app gives the design resulting from adding all the points of the limits of the feasible region for this user choice. The feasible region can be visualized beforehand.
  - In Restricted Design, the choice of weight and efficiency must also be made, which gives the feasible region. Then the user can add points within the region to the design up to the desired weight (if over or under that number, the weights will be scaled down/up) and calculate the efficiency of their design.
- Your Design is another possibility if you want more freedom for the design to be evaluated:
  - First you should Build your design, and you can then evaluate its the efficiency.
  - Then, in Enhance my design, an analogous procedure to that in Restricted Design can be followed, where, after the choice of weights and efficiency, the user adds points in the feasible region. The difference is that rather than start with the optimal design, the initial design is the user input in Build your design.

**NOTE:** the inputs for the user to choose are on the left sidebar, while the main body of the app is used only to reflect the outputs.