**Statistics-I**. First Continuous Evaluation, 2021/2022

A group of researchers wanted to examine whether the university students who live in a shared apartment obtain worse marks in the first year of university than those who live with their families at home. To that end, they recruited 200 first-year students who lived in a shared apartment and 200 first-year students who lived with their families. The researchers obtained the average mark of all the courses in the first semester of the first year.

QUESTION 1.

(a) Which are the independent and dependent variables in the experiment? Justify your answer.

(b) How many rows and columns will we have in the JASP file?

QUESTION 2.

(a) Is this an experiment? Justify your answer.

(b) Let’s assume that the data reveal higher marks for the students who live with their families. Can you think of a reasonable follow-up study?

We have the following data file (<https://www.uv.es/mperea/rLAS.jasp>) in which several psychological and demographic variables of the participants of a study (extroversion in two sessions, agreeableness, age, sincerity, type of institute [public, religious]) are collected.

QUESTION 3. We want to know if there are differences in the level of extroversion (understood as the sum of extroversion scores on both days; "extroversion\_total") as a function of the gender the students identify themselves. Use the appropriate graphs/statistics and indicate the conclusions. (Copy/Paste JASP outputs)

QUESTION 4. For this question, we only want to analyze the sample of participants who have passed the study's sincerity filter ("sincerity" variable). Does the variable “agreeableness” (i.e., one of the Big Five personality factors) follow approximately a normal distribution? Use the appropriate graphs/statistics and indicate the conclusions. (Copy/Paste JASP outputs)