

1. To publish scientific results, you will usually need to use statistical methods. Some journals provide you with a brief description of how they expect you to apply statistical methods. One example can be found in the author guidelines of the journal Nature.

Assume you collected the following dataset. You can download it from Ilias as `example001.csv`. Here is the description of the dataset:

MAO and Schizophrenia Monoamine oxidase (MAO) is an enzyme that is thought to play a role in the regulation of behavior. To see whether different categories of schizophrenic patients have different levels of MAO activity, researchers collected blood specimens from 42 patients and measured the MAO activity in the platelets. Values are expressed as nmol benzylaldehyde product per 10⁸ platelets per hour.

- (a) Download the dataset and write a script that loads it into matlab.
- (b) Think about the type of your data (I might ask you that tomorrow).
- (c) Produce a plot that displays the data in an appropriate way. Make sure to respect all elements of good plotting we discussed today.
- (d) Download the statistical checklist from nature. Produce **one** slide that contains the plot and a concise summary of your data which respects the requirements made by nature (assume you are producing a figure legend for the figure in nature). It is good style to avoid expressions like "the plot shows" or similar.
- (e) Upload your code, the data, and the slide as a zip to Ilias. Deadline is 19h00. Structure the zip such that you can present your program in front of the class. Several students will be asked to present their slide and their code tomorrow morning.