

# Homework #1

Student name:

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Course: 2022 M.M.P. Statistics for Medicine (P5.2) – Professor: Massimo Borelli  
Due date: Sunday, February 21st, 2024

## Question

1. Search and read the paper by Mara Severgnini, Mario de Denaro et al., entitled *In vivo dosimetry and shielding disk alignment verification by EBT3 ...* (PMID 25679150).
2. Read and understand the data of their Table 1 (page 118 of the .pdf).
3. Connect to <https://github.com/MassimoBorelli/ictpmmp>, download the breastioert dataset and import it into JASP.
4. Obtain a table reporting absolute frequencies and relative frequencies of *Energy*.
5. Obtain the median and compute the interquartile range of the *Collimator Diameter*.
6. Obtain a boxplot of the *Area outside shielding*.
7. Obtain a cartesian x-y scatter plot of the *Area outside shielding* versus the *Difference Expected Dose and Measured Dose*.
8. Report the 4., 5., 6. and 7. outputs, eventually arranged in a more readable form, into the **Answer** section of the present Homework # 1. Conclude by creating a .pdf document.
9. Go to <https://forms.gle/3LRf1VC6dVr56tCKA> in order to upload your final .pdf document.

**Answer.**