

# Interactive R server for teaching statistics

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We present elements developed for an introductory course of statistics such as the concept of ANOVA (Analysis of Variance) and its application to linear regression. It is intended to significantly lower the students' entry barrier to statistical methods.

Students can access to this facility via internet [1] and interactively play with graphics to observe dynamically the impact of changes on the methods used (see Figure 1 below).

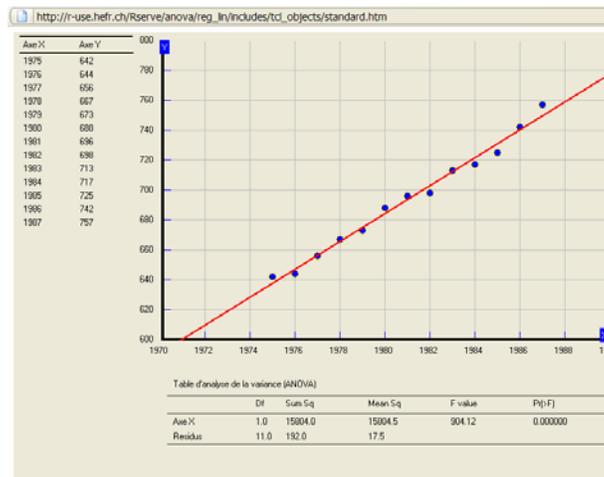


Figure 1: Example of an interactive graphic

R is used as a server in background to perform all statistical calculations. We take advantage of the Rserve library and TCL/TK environment for that purpose.

This work is part of developments to facilitate statistics learning [3].

## References

- [1] Voirin P. (2009). *Cours de statistique: ANOVA*  
<http://r-use.hefr.ch/>.
- [2] Larreamendy- Joerns J., Leinhardt G., Corredor J.(2005), *The American Statistician*, 59(3): 240-251.
- [3] Voirin P., Abou Khaled O., Senn T. (2006). *R as integrated engine in blended learning environments*, User!2006 (Vienna, Austria), June 2006.