

CIG Workshop – Introduction to statistics

References

1 December 2006

1 Books on statistics

- Darrell Huff and Irving Geis. “*How to lie with statistics*”, W.W. Norton & Company, New-York, 1954. ISBN 0393310728.
*The bestseller of all statistics books. Fine examples of what **not** to do, and how to catch other people who actually do it.*
- Larry Gonick and Woollcott Smith. “*The Cartoon Guide to Statistics*”. Harper-Perennial, New-York, 1993. ISBN 0-06-273102-5.
A very nice and educational book about the basic concepts of statistics.
- Edward Tufte, “*The visual display of quantitative information*”, 2nd edition, Graphics Press, 2001. ISBN 0961392142.
This book is almost closer to an art book than to a statistics book. Many examples of what to do and what not to do; the author, while a bit extreme some times, has many insightful ideas about how to graph data. Other books by Edward Tufte are also worth looking at; see his website at <http://www.edwardtufte.com/>
- Deborah Nolan and Terry P. Speed. “*Stat Labs: Mathematical Statistics Through Applications*”. Springer-Verlag, New-York, 2001. ISBN 0387989749
Explains statistics using case studies; each chapter starts with an actual data analysis problem (based on real-life examples), and includes background information about the topic, followed by information about the statistics tools required to treat it.
- David Freedman, Robert Pisani and Roger Purves. “*Statistics*”, 3rd edition. W.W. Norton & Company, New-York, 1991. ISBN 0-393-97083-3.
A classic; this book emphasises concepts rather than raw formulas, and contains many concrete examples.

- Ernest Feytmans. “*Statistiques Élémentaires*”. Available as PDF on request.
Écrit par le directeur du SIB, c’est le support du cours de statistique de l’ancien DEA en bioinformatique et du “Master’s in Proteomics and Bioinformatics”.
- Stephan Morgenthaler, “*Introduction à la statistique*”. Presse Polytechniques et Universitaires Romandes, 2001. ISBN 2-88074-372-9.
Écrit par un professeur de l’EPFL; une bonne introduction à divers méthodes de statistiques. Destiné à des ingénieurs, il est plus technique que p.ex. le livre de Freedman ci-dessus.

2 Books on R

- Peter Dalgaard. “*Introductory Statistics with R*”. Springer-Verlag, New-York, 2004. ISBN 0387954759.
An excellent introduction book, which also introduces many statistical concepts along the way without going too much into the details.
- John Fox. “*An R and S-Plus Companion to Applied Regression*”. Sage Publications, 2002. ISBN 0761922806
A practical book on linear regression, in particular in the context of R.
- W.N. Venables and B.D. Ripley. “*Modern Applied Statistics with S*”, Fourth edition. Springer-Verlag, New-York, 2002. ISBN 0-387-95457-0.
Usually referred to as “MASS” or “Venables & Ripley”, and sometimes nicknamed “the R bible”, this is the main reference on R. It gives details about many statistical topics and how they can be applied in R, but it does not go into details and assume that the reader will know about the underlying statistical theory; as such, it is a more advanced book.