Linear Models with R
Julian J. Faraway
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This book adds to the growing literature documenting the statistical and graphics system R (see [4]), an open source implementation of the language S. It covers Linear Regression and ANOVA, with a wealth of examples illustrating estimation, inference, diagnostics, departures from the usual assumptions, variable selection, transformation of variables, and the basics of ANOVA and experimental design. It also includes two short appendix chapters on obtaining and installing R and a quick introduction to the language.

One danger with applied books such as this is that they become recipe lists of the kind "press this key to get that result". This is not the case with Faraway's book. Throughout, it gives plenty of insight on what is going on, with comments that even the seasoned practitioner will appreciate. Interspersed with R code and the output it produces one can find many little gems of what I think is sound statistical advice, well epitomized with the examples chosen.

The book is well produced with few missprints, none of which I found particularly insidious or irritating.

A good book such as this begs the question of who are its potential readers. As is clear from my comments above, I read it with delight and think the same will be true with anyone engaged in the use or teaching of Linear Models. On the other hand, when I tried to read it with the eyes of my students, I found that most of them would find it much too terse. The author acknowledges that the book is not an introduction to R, which is true: a reader with no previous exposure to R might be better served by books such as [1] or [7] (there is also abundant documentation for R available *on line*). The book also assumes some acquaintance with the theory of Linear Models. It is quite adequate as a companion book to any of the many standard texts such as [5], [2] or [6]; but I think a student with no previous training in Linear Models would find Faraway's discussion of the topic hard to follow at times. In that particular aspect, [3] benefits from its tighter integration with a text of regression.

I personally find this book a valuable buy for anyone involved with R and Linear Models, and a must in any university library where those topics are taught. Some more pointers to standard regression texts and an index listing functions by name for easy reference would be on my wish list for next printings.

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References

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