

BOOK REVIEW

GEOSTATISTICS WITH APPLICATIONS IN EARTH SCIENCES by D.D. Sarma,
2nd Edition. Capital Publishing Company, New Delhi, Kolkata, 205p.

I reviewed the first edition of this book for AP Academy of Sciences, So, I shall deal with the new material in this edition.

There are several valuable new additions in the second edition. Section 1.1 has been significantly expanded to explain various aspects of sampling methodology and exploratory data analysis. With the advancement and ease in computations using computers, Monte-Carlo methods have gained a lot of importance in statistical analysis. It is heartening to see the addition of a full section (section 2.6) on simulation and applications. A brief section on computation of variogram in the case of irregular grid (Section 5.8) is another addition in this edition. An entire chapter (Chapter 9) on how to deal with non-stationary data is a welcome addition in this edition. Some more references have been added.

I made some suggestions in my review of the first edition. A number of them have been addressed in this edition.

1. The review of questions at the end of every Chapter which help a keen student to learn better.
2. There is a CD containing the codes that come with the book (I could not see what exactly is contained in the CD) as the review book sent to me did not contain CD.

I am sure this book is there to stay and will go for more editions. In the next edition, I would like to see the following additions

1. A Chapter on the inversion methods (Inversion methods are important in virtually every branch of Earth sciences)
2. Box plots as a part of exploratory data analysis (these are very useful in comparing data sets graphically).
3. Live data sets included in CD and review questions based on them in each chapter (this will help the students to understand and be prepared for the detailed analysis of actual projects they are expected to take up).
4. Section 5.8 on computation of variogram in the case of irregular grid is too brief. It will be nice if this section is expanded with a worked out live example

The current chapter 10 may be deleted from the main text and be included in the CD as one would like to use the software rather than learn algorithms from the software.

I strongly recommend this book to post-graduate students and research workers in Earth sciences.

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