Geostatistical Software Library and User's Guide
by Clayton V. Deutsch and André G. Journel.

Review by Christopher G. Kendall

This book will be an important text to most of geostatisticians, including graduate students and experts in the field of practical geostatistics. The guts of this volume are the two high-density IBM disks which come with it and contain 37 programs which can be run in both UNIX and DOS environments but are not machine specific. The programs are aimed at three major areas of geostatistics: quantifying spatial variability (variograms), generalized linear regression techniques (kriging), and stochastic simulation. In all there are some 80 source files included with the distribution diskettes. The programs are not executable but require to be compiled before running them. A machine with a fortran compiler is required. The intent of the authors is to make this suite of programs accessible to anyone who wants to use them. The source code of these programs has been assembled, developed, tested, and tried at Stanford University over a period of some 12 years. Though this library of programs is not intended as a commercial product it represents a gold mine to those who need a jump start into the field of geostatistics.

The text of the book is a guide to the programs, providing a general description of them. It is certainly not a theoretical text book on statistics, but is focused on explaining how the programs on the disks work. These programs are aimed at mapping the spatial distribution of one or more attributes, with the intent of predicting the distribution of these attributes away from areas where they are well known, into areas of poor data. The authors, and students they worked with, have tried to provide a uniform style to the software. This users' guide is written to be understood by all, aiming at clarity of style rather than the description of rococo theories. The intent of authors is that these programs can be used as stand alone or can be broken into segments that can then be tied into one's own custom developed software.

This book is a professionally assembled manual to the attached programs. There are numerous notes and explanations of the different software, with many examples. The execution of each program is discussed along with their parameter files and the nature of data sets needed to run them. There is also the provision of problem data sets to test the programs so they can be better understood. Though this book was not proposed as a text book, it does contain data sets which can be run with the programs, questions that can be asked with them, and contains results from running these programs, suggesting that this book can be used as a laboratory text. Don't let this put you off. These exercises and examples are useful, particularly if you plan to use these programs and need to develop some familiarity with them before you incorporate them into solving your own problems.

Though this book is only 340 pages long, it represents many years of work and provides an insight into the geostatistics that can only be gained through the practical application of the software that is provided with this book. Deutsch, Journel and their students have provided an invaluable service to the geological community by publishing this work. Though the authors disclaim any responsibility for the software and its inherent problems, I am sure that their phones are going to be ringing off the hook for years to come by people asking for help. Clearly the authors have come to recognize that beyond being a creative act, the purpose of writing software is that someone will use it. It is great to have this volume on my shelves and I am sure that those who have interest in geostatistics will not regret purchasing it either.
Geostatistics software solution for data analysis and visualization, 2D/3D mapping, mineral resource estimation, oil reservoir geomodeling, risk analysis. First released 25 years ago, it is widely recognized as the reference geostatistical software solution. Isatis addresses very different issues from various industries, enabling thorough data analysis and visualization, quality mapping, accurate resource estimation, advanced geomodeling, risk analysis. It offers a robust and sound geostatistical technology which is continuously improved, year after year. Isatis connectivity with premier software packages makes it easy to integrate in your day-to-day workflow. Get trusted results. Geostatistical Analyst Tutorial. analysis (ESDA) tools to examine your data. You will also be introduced to some of the geostatistical options that you can use to create a surface, such as removing trends and modeling spatial autocorrelation. By using the ESDA tools and working with the geostatistical parameters, you will be able to create a more accurate surface. Many times, it is not the actual values of some critical health risk that are of concern but rather whether the values are above some toxic level. If this is the case, immediate action must be taken. This site provides the latest information on GSLIB: Geostatistical Software Library and related software. The objectives of this web site are to: Point researchers and practitioners to the public-domain GSLIB programs for geostatistical problem solving. Provide the latest GSLIB source code and PC executables to download. Bug fixes and frequently asked questions are updated from time to time. Inform users of a commercial supplement to GSLIB, WinGslib, a Windows interface to GSLIB and related programs. Announce training, support, and consultation opportunities. Although GSLIB comes with no suppo