

„Statistics in geology“ by authors Tomislav Malvić and Gordana Medunić



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In May 2015, the book "Statistics in geology" came out in print (see **Figure 1**). The authors are Dr. Tomislav Malvić, Assoc. Prof. in Geol., an employee of INA and the University of Zagreb, the Faculty of Mining, Geology and Petroleum Engineering and Dr. Gordana Medunić, Assoc. Prof. in Geol., employed at the University of Zagreb, Faculty of Science. The book is published as a university book (*Manualia universitatis studiorum Zagrabienensis*) under the auspices of the mentioned faculties. The circulation is 200 copies.

This is the third book in the field of Geomathematics applied onto geological analyses published in the Republic of Croatia, but the first book on the applications of "classical" statistics in geology. The format is A4 (210 x 297 mm) and the book contains 88 pages that include the preface, the main text divided into five chapters, the prologue, an index with 66 terms and a reference list. The chapters are: 1. The importance of selecting and editing input data; 2. Statistical distributions and their applications to geological data; 3. Often applied statistical tests in geology; 4. Correlation, regression and other statistical tools for searching relationships between geological variables; 5. The integration of surfaces and application in the volume calculation of "closed" geological structures. The entire book is illustrated (mostly in colour) with 29 figures, containing 19 tables and 76 equations.

A CIP record is available from the National and University Library in Zagreb under the number 000905751, and the book's ISBN is 978-953-6923-29-8. The work is classified as a university teaching book in geostatistics. The reviewers were Dr. Josipa Velić, Prof. Emer., the Faculty of Mining, Geology and Petroleum Engineering, Dr. Zoran Peh, senior scientist for the Croatian Geological Survey, and Dr. Jasenka Sremac, Assoc. Prof., Faculty of Science. The Croatian proof-reading was done by Dr. Ivana Matas Ivanković, research associate at the Institute of Croatian Language and Linguistics. The book is technically prepared and printed by Denona Ltd., Zagreb.

The book is a valuable university textbook, intended not only for students, but also for engineers and scientists. It explains the basic statistical concepts, with particular emphasis on statistical distributions and statistical tests that are frequently used in geology. The possibilities for the use of statistical tools in a variety of geological research are explained. The mathematical content of the book includes calculating surface area and volume as well as the related approximate calculation of the value of the definite integral. The exposition is illustrated with examples from the geology of oil and gas and surface protection of the environment, which gives a special value to this textbook. Since it is not possible to cover all the possibilities for the use of statistics in geology, examples have been selected in accordance with the scientific and educational affinity of the authors.

Several copies of this book were donated to the libraries of the Faculty of Mining, Geology and Petroleum Engineering and the Faculty of Science, as well as to the libraries of most geological institutions in Croatia. The book is also available for sale at the mentioned faculties.

About the authors:

Tomislav Malvić is employed in INA-Industry of Oil plc, E&P of Oil and Gas, Field Development Sector, as a senior expert in the director office. He also works as an Associate Professor at the University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Department of Geology and Geological Engineering, where he teaches Geology of fluids flow, Geostatistics and Geomathematics. He has the scientific title of a senior scientist. His bibliography is available at <http://bib.irb.hr/lista-radova?autor=211965>.

Gordana Medunić is an Associate Professor at the University of Zagreb, Faculty of Science, Department of Geology. She teaches a range of courses in the domain of research and environmental protection at the undergraduate and graduate studies in geology (Fundamentals of element and phase analysis, Geochemistry, Geostatistics, Pollution of the atmosphere and global warming). Her bibliography is available at <http://bib.irb.hr/lista-radova?autor=217411>.