
Matemáticas Aplicadas a Las Ciencias de la Tierra: A Book that can Support Better and Optimal Decisions

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ABSTRACT

The book *Matemáticas Aplicadas a las Ciencias de la Tierra* is a work of 15 engineering faculty on the National University of Mexico's academics. We decided to write this book with this characteristic: it was written in Spanish (there are no books of this type in Spanish), a perfectly formal presentation of the basic concepts on mathematics and the clarity and simplicity on its explanations. We think this characteristic makes it work, because it is easier for the actualization on some basic mathematical concepts, by those users who are working, right now, in the applications and investigation about geosciences, and the existence of simple but true applications motivate some students and help them to obtain better learning results.

We consider that the result of the effort writing this book, goes well with the 61st Annual Convention's theme "Sharing Knowledge to Add Value," because that is exactly what the authors' team, some of us with a great experience and knowledge on geosciences and experience on mathematics than others: sharing experiences and knowledge and to write a book that includes some application cases on the reality, and simplified examples on the application of mathematics to build solutions on engineering problems on geology, petroleum exploration, geophysics, etc.

Finally, the subjects studied in the book are: geometry, trigonometry, analytic geometry, differential and integral calculus, vector calculus, differential equations, numeric methods, and probability and statistics.

Of course, we want to comment that the book has had a very good response on the students, professionals, and authorities.