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Advances in Environmental & Geological Science & Engineering

Proceedings of the 2nd International Conference on
ENVIRONMENTAL and GEOLOGICAL SCIENCE and ENGINEERING (EG '09)

Transilvania University of Brasov, Romania, September 24-26, 2009

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Preface

This year the 2nd International Conference on ENVIRONMENTAL and GEOLOGICAL SCIENCE and ENGINEERING (EG '09) was held in Brasov, Romania, September 24-26, 2009. The Conference remains faithful to its original idea of providing a platform to discuss Earth's materials and resources, Earth's dynamics, Geo-environmental planning and management, environmental remediation, geo-information resources etc. with participants from all over the world, both from academia and from industry.

Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of this conference are published in this Book that will be indexed by ISI. Please, check it: www.worldses.org/indexes as well as in the CD-ROM Proceedings. They will be also available in the E-Library of the WSEAS. The best papers will be also promoted in many Journals for further evaluation.

A Conference such as this can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors

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Plenary Lecture

A Generalized Mathematical Model for the Analysis of Sediment Basins



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Abstract: There is a process of compactness of sediments in geological time determined by the subsidence of the sedimentation basin. This process is accompanied by a modification of the sediments porosity and a variation of their thickness. The determination of the decompacted thickness of the sediments is crucial for the analysis of the sedimentation basins in order to evaluate the subsidence and the sedimentation rate. The present paper elaborates a general method for the study and analysis of the porosity variation and sediment thickness in geological time. Our case study points out the fact that exponent of the variation law can have rational values, depending upon the analyzed sediment. The proposed mathematical model brings a substantial improvement to the precision of the calculus of sediment basins.

Brief Biography of the Speaker:

Studies:

BsC 1997 -Faculty of mathematics of the Al. I. Cuza University

MsC 2001- Faculty of Mathematics of the Al. I. Cuza University

PhD 2003 – Faculty of Mathematics of the Bucuresti University

Academic Positions:

1997-2001 Research assistant / Dept of Mechanics and Astronomy at the Al. I. Cuza Univ

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2003-present Lecturer / Dept of Mathematics of the Al I Cuza University

Scientific Activities:

Over 25 research papers, 7 books on applied mathematics, computational mechanics and informatics

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