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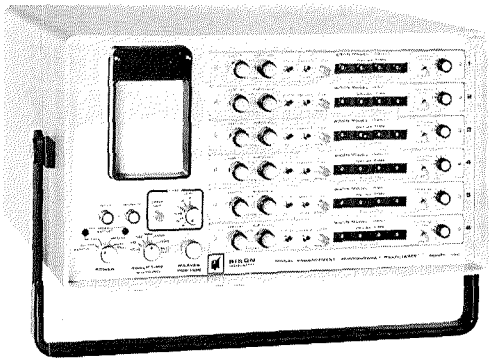

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by P.V. SHARMA

Methods in Geochemistry and Geophysics, 12

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Volume 1:

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by K.G. JÖRESKOG, Department of Statistics, University of Uppsala, Sweden, J.E. KLOVAN, Department of Geology, University of Calgary, Canada, and R.A. REYMENT, Department of Historical Geology and Paleontology, University of Uppsala, Sweden.

1976. xii+180 pages. Price: US $23.25/ Dfl. 60.00 Paperback. ISBN 0-444-41367-7.

In a science as heterogeneous as the earth sciences, it is to be expected that some fields will be more amenable to quantification than others, as reflected in this volume. Thus, most of the examples are drawn from geochemistry, sedimentology and palaeontology. Since many computer users are not really at home with the statistical reasoning underlying the methods they use, the most widely spread class of techniques, that of Factor Analysis, has been singled out for presentation in this book. The level at which the subject is introduced is elementary, although the presentation is as rigorous as possible at this level. The algebra of vectors and matrices necessary for understanding the text is introduced in detail and is amply illustrated.

CONTENTS: 1. Introduction. 2 Basic mathematical and statistical concepts. 3. Aims, ideas and models of factor analysis. 4. *R*-mode methods. 5. *Q*-mode methods. 6. Steps in the analysis. 7. Examples. References.

Volume 2:

JCL and Advanced FORTRAN Programming

by HANS-ÅKE RAMDÉN, Assistant Head, System Analyst Group, Uppsala University Data Center.

1976. viii+168 pages. Price: US $18.95/ Dfl. 49.00 Paperback. ISBN 0-444-41415-0.

Presupposing a basic knowledge of a computer programming language such as FORTRAN, this book is intended for the student, scientist or researcher who wishes to use the computer as a tool rather than as a science. It pinpoints the most common problems encountered by the "non-professional" user and presents them in a more readily understandable form than that published in the reference manuals by the computer manufacturers. Although oriented towards FORTRAN, especially with regard to the IBM 360/370 System, it will be of considerable help in other cases, and is also suitable as a textbook in courses on data-processing in natural sciences, at advanced undergraduate level.

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Foundations of Nuclear Geophysics. Article (PDF Available) Â· May 2002 with 29 Reads. Cite this publication.Â Herndon suggested that the inner core of the Earth consists, not of partially crystallized iron metal, but of nickel silicide. He has shown by fundamental mass ratios that i) the Earth as a whole, especially the inner 82%, has a state of oxidation like primitive enstatite chondrites, and ii) the lower mantle and core are similar in composition to the Abee enstatite chondrite. Scheidegger, A.E. The following subjects are covered/: geography, geodesy, and geology; seismology, gravity, and the Earth's interior; magnetic and electrical properties of the earth; thermicity of the earth and related subjects; tectonophysics; geophysical exploration; geohydrology; physical oceanography; physical meteorology; and engineering geophysics. (MHR). The problem of foundation of geophysics as an independent scientific discipline has been discussed by Wilfried SchrÃ¶der.[13][14] General research into the history ofÂ ^ Buntebarth, G. (1981) "Zur Entwicklung des Begriffes Geophysik", Abhandlungen der Braunschwiegischen Wissenschaftlichen Gesellschaft 32, 95-109. ^ Beck, H. (1961) Alexander von Humboldt, 2 Vols (Wiesbaden: Steiner). ^ Good, G.A., 2000 , The Assembly of Geophysics: Scientific Disciplines as Frameworks of Consensus, Stud. Hist. Phil.