Buchanzeigen

Objekttyp: **Group**

Zeitschrift: **Commentarii Mathematici Helvetici**

Band (Jahr): **75 (2000)**

PDF erstellt am: **26.07.2024**

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Glimpses of Algebra and Geometry. By Gabor Toth. Undergraduate Texts in Mathematics (Springer Verlag, Berlin Heidelberg New York London Paris Tokyo Hong Kong 1998.) XVIII, 308 pp., Hardcover sFr. 62.00; DM 68.00 – ISBN 0–387–98213–2.

The purpose of *Glimpses of Algebra and Geometry* is to fill a gap between undergraduate and graduate mathematics studies. It is one of the few undergraduate texts to explore the subtle and sometimes puzzling connections between Number Theory, Classical Geometry and Modern Algebra in a clear and easily understandable style. Over 160 computer generated images accessible to readers via the World Wide Web, facilitate an understanding of mathematical concepts and proofs even further.

Glimpses also sheds light on some of the links between the first recorded intellectual attempts to solve ancient problems of Number Theory and Geometry and twentieth century mathematics. The text is divided into subtexts of four levels (indicated by the card symbols in Bridge) according to the readers aptitude. *Glimpses* will appeal to students who wish to learn modern mathematics, but have few prerequisite courses, and to high-school teachers who always had a keen interest in mathematics, but seldom the time to pursue background technicalities. Even postgraduate mathematicians will enjoy being able to browse through a number of mathematical disciplines in one sitting.

Highlights of *Glimpses* include discussions of: Rationality, Elliptic Curves and Fermat's Last Theorem, Fundamental Theorem of Algebra, Hyperbolic Geometry and Riemann Surfaces, Platonic Solids, Topology of Surfaces, The Four Color Theorem and The Fourth Dimension. Material from this volume can be taught the traditional way using slides, or interactively in a computer lab or teaching facility equipped with a PC or a workstation connected to an LCD-panel.

Topics in Advanced Scientific Computation. By Richard E. Crandall. (Springer Verlag, Berlin Heidelberg New York London Paris Tokyo Hong Kong 1995.) XII, 340 pp., Hardcover sFr. 75.00; DM 78.00 – ISBN 0–387–94473–7.

The theme of this book is "hard computational problems made accessible". It is a collection of essays on modern computational problems whose solutions are difficult, if not impossible, to achieve and offer solutions to important problems in modern scientific computation. This publication covers hot topics of interest to a broad spectrum of professionals working with chaos and fractals, complexity, prime numbers and encryption, wavelets, fast Fourier transforms, signal processing, etc. This book is a tour of modern algorithms and will be extremely useful to computational researchers and students for the following reasons: it focuses on solutions to problems, rather than problem posing; it contains explanations of the importance and origins of hard problems whose explanations are usually difficult to find in modern literature; it includes exhibitions of state-of-the-art algorithms for these difficult problems; and, it contains inclusion of actual code for most algorithms discussed. Enhancement files, program code and other data are available via the TELOS Web site: www.telospub.com.