

on the subject and at some of the additional references listed below or in the excellent bibliography at the end of Lehto's book.

REFERENCES

1. W. Abikoff, *The real analytic theory of Teichmüller space*, Lecture Notes in Math., vol. 820, Springer-Verlag, Berlin, Heidelberg, New York, 1980.
2. L. Bers, *Finite dimensional Teichmüller spaces and generalizations*, Bull. Amer. Math. Soc. (N.S.) **5** (1981), 131–172.
3. F. P. Gardiner, *Teichmüller theory and quadratic differentials*, Wiley Interscience, John Wiley and Sons, New York, 1987.
4. W. J. Harvey (ed.), *Discrete groups and automorphic functions*, Academic Press, London and New York, 1977.
5. I. Kra, *Canonical mappings between Teichmüller spaces*, Bull. Amer. Math. Soc. (N.S.) **4** (1981), 143–179.
6. O. Lehto and K. I. Virtanen, *Quasiconformal mappings in the plane*, Springer-Verlag, Berlin and New York, 1973.
7. S. Nag, *The complex analytic theory of Teichmüller spaces*, Wiley-Interscience, John Wiley and Sons, New York, 1988.

CLIFFORD J. EARLE
CORNELL UNIVERSITY

BULLETIN (New Series) OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 19, Number 2, October 1988
©1988 American Mathematical Society
0273-0979/88 \$1.00 + \$.25 per page

Kleinian groups and uniformization in examples and problems, by S. L. Krushkal', B. N. Apanasov, and N. A. Guseviskii. Translated from Russian by H. H. McFaden. Translations of Mathematical Monographs, vol. 62, American Mathematical Society, Providence, R.I., 1986, vii+198 pp., \$66.00. ISBN 0-8218-4516-0

The old order changes; classical divisions of mathematics into subject areas of distinguishable type have been progressively refined and fragmented until the attempt to classify a research paper via the MR subject index appears as a task of comparable size to understanding the results themselves. This Balkanisation process is compounded by an increasing—and no doubt welcome—tendency towards federalisation of the ideas and techniques which erodes and transcends even the ancient divides of algebra, analysis, and geometry.

How, for instance, should one approach Kleinian groups? As discrete subgroups of the Lie group of complex two-by-two matrices, Kleinian groups fit naturally within at least four broad subject areas, reflecting their origins within the classical analysis, the underlying (abstract) group-theoretical structures which they represent, their position within the deformation theory of discrete groups in general, and the topological connection with hyperbolic three-dimensional manifolds first noticed by Poincaré and recently brought back to prominence by Thurston's revolutionary ideas. None of which mentions the specific and important links with number theory, algebraic groups, the geometry of algebraic curves and their moduli spaces, or the analogy with