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Additional physical insight can be gained from the many excellent articles on the subject which have appeared over the past decade in Scientific American (articles by Glashow, Nambu and others).

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Lectures on Riemann surfaces, by Otto Forster, Graduate Texts in Math., vol. 81, Springer-Verlag, New York, 1981, viii + 254 pp., $35.00. ISBN 0-3879-0617-7

Riemann surfaces, By Hershel M. Farkas and Irwin Kra, Graduate Texts in Math., vol. 71, Springer-Verlag, New York, 1981, x + 337 pp., $29.80. ISBN 0-3879-0465-4

Riemann surfaces, those old and venerated structures, show their smiling faces in many different connections, from the geometry of algebraic curves to the integration of nonlinear partial differential equations in mathematical physics. Even with all that is familiar, each generation finds frontiers beyond, exciting the explorers with a unique combination of explicitness and richness of technique: algebraic, analytic, and geometric. The great masters of the 19th century (Abel, Riemann,...) left a wealth of information and insight on