

theory to recall how bitterly Newton's mechanics was attacked around 1700. It did not at all agree with the "normal intuitions" of the people of those days. Men like Swift, Berkeley, Leibniz protested against those freaks of absolute space and universal attraction. And it is exactly because of the fact that Newton's mechanics does violate some of the "normal intuitions" of the human mind in the last centuries—compare the criticism of Euler, Carl Neumann, Mach, of Newton's conception of rotation—that Einstein's theory was born.

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Encyclopädie der Mathematischen Wissenschaften mit Einschluss ihrer Anwendungen. Volume 2 in three parts. *Analysis*, edited by H. Burkhardt (1896–1914), W. Wirtinger (1905–1912), R. Fricke and E. Hilb. Third part, second half. Leipzig, Teubner, 1923–1927. xiii+675–1648 pp.

Mathematicians who eagerly expected the publication of this volume certainly will not be disappointed; it is a result of careful and thorough work on the part of a number of leading specialists in their respective fields. The volume contains an enormous amount of bibliographical material which is presented in readily accessible form. It is difficult to imagine a mathematician engaged in research or even in teaching the subjects discussed, who will fail to benefit by repeated consultation of this volume.

The volume under review consists of four parts which were published separately at different dates.

Heft 6 (July 14, 1923) contains the articles by Nörlund, *Neuere Untersuchungen über Differenzgleichungen*; Bohr and Cramér, *Die neuere Entwicklungen der analytischen Zahlentheorie*.

Heft 7 (April 1, 1924), Borel and Rosenthal, *Neuere Untersuchungen über Funktionen reeler Veränderlichen*, contains three parts: Zoretti and Rosenthal, *Die Punktmengen*; Montel and Rosenthal, *Integration und Differentiation*; Fréchet and Rosenthal, *Funktionenfolgen*.

Heft 8 (September 10, 1924) contains the article by Hilb and M. Riesz, *Neuere Untersuchungen über trigonometrische Reihen*; Hilb and Szász, *Allgemeine Reihenentwicklungen*; Lichtenstein, *Neuere Entwicklung der Theorie partieller Differentialgleichungen zweiter Ordnung vom elliptischen Typus*.

Heft 9 (December 15, 1927), Hellinger and Toeplitz, *Integralgleichungen und Gleichungen mit unendlichvielen Unbekannten*.

A detailed analysis being entirely out of place here (we give a separate review of the last article by Hellinger and Toeplitz, which was published also as a separate book) let us point out only the desirability (i) of mentioning boundary problems and the notion of Green's function in the theory of difference equations, for example, M. Bôcher, *Boundary problems and Green's functions for linear differential and difference equations* (Annals of Mathematics, vol. 13(1911–12) p. 71–88). (ii) of giving a place to the theory of q -difference equations as a field closely related to that of difference equations. (iii) of having an author index at the end of the volume. The absence of such an index is unfortunately a general defect of the Encyclopädie.

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