

*Bibliographie de la Relativité*, suivie d'un appendice sur les déterminants à deux dimensions, le calcul des variations, les séries trigonométriques, et l'azéotropisme. By Maurice Lecat. Bruxelles, Lamertin, 1924. 292+47 pp.

M. Lecat's bibliography of relativity should find a place in all university libraries and also in the personal libraries of those who are working in this field. In carefully checking the list against my own (limited) store of bibliographical information I found only one omission, viz. the pamphlet by A. N. Whitehead entitled *The Principles of Natural Science*, a lecture delivered at Bryn Mawr on the eighteenth of April, 1922, and published by Bryn Mawr College. In view of the limited circulation which this pamphlet received I feel justified in saying that M. Lecat's book is a remarkably complete index of the world's literature on relativity as it was on the day of publication, April 10, 1924.

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*Höhere Mathematik. Teil I: Differentialrechnung und Grundformeln der Integralrechnung nebst Anwendungen.* By R. Rothe. Leipzig, B. G. Teubner, 1925. vii+185 pp.

This little volume is one of the collection of Teubner's Technische Leitfäden, whose purpose is to give to technical students the theoretical foundations of their work in a brief and handy form.

The volume under discussion, the first of three on "Höhere Mathematik", is devoted mainly to the differential calculus. The chapter headings are: (1) Numbers, variables, and functions, (2) Main theorems of the differential calculus and fundamental integration formulas (3) functions of two or more variables, (4) differential geometry of plane curves, (5) complex numbers, variables and functions. The treatment is brief and concise, but there is no attempt to sacrifice rigor and clearness to brevity. The number of exercises is rather small, especially in comparison with similar books in this country, but on the whole they are well chosen. Of applications (and we assume this to mean applications of a technical nature) there are fewer than one would expect from the title of the book. The chief ones are references to questions of approximations, brief mention of linkages (in connection with curves in polar coordinates) and occasionally a problem in the exercises with an engineering setting.

The book is interesting as indicating perhaps what the mathematica equipment in the direction of the calculus, of an engineer in Germany is supposed to be. The opening chapter, which is really an introduction to the theory of functions of a real variable, would seem to indicate that a student of calculus is supposed to cope successfully with a rigorous treatment of limits and continuity. American textbooks