

the study of those well acquainted with the subject. The book will take its place among the important treatises on hydromechanics.

C. A. SNOOK

*Gesammelte Abhandlungen. Geometrische Abhandlungen.* By Sophus Lie Edited by Friedrich Engel and Poul Heegaard. Vol. 1, 1934. 862 pp. Vol. 2, 1937. 506 pp. Leipzig, Teubner; Oslo, Aschehoug

These two volumes contain Lie's publications on geometry. We have Lie's first papers on imaginary plane geometry and line geometry. Already in this early work the consideration of transformation groups and their relations to geometry which are predominant in his later work can be found. The general trend of Lie's way of thinking can best be studied in the numerous memoirs on contact transformations and minimal surfaces. Characteristic of the beauty of Lie's papers on geometry are the articles dealing with the connection between translation surfaces and the theory of abelian functions. In these two volumes we find many papers in which the foundations for the modern theory of Pfaffian systems and general geometry were given. The collected works proper are augmented by two commentaries of the editors. These commentaries give many critical and historical remarks which are extremely useful for the study of the various papers.

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