

conformal language and notation. There is a certain finality about the content which makes it the foundation of every further study on the subject.

It is not always easy to follow the author and we would like to ask him to be kind with his readers when he gives the final touches to the other two volumes. As an example, let us take the beginning of the book. On page 1 we hurry immediately into the midst of things. An oriented sphere is defined by 5 pentaspherical coordinates connected by a quadratic relation. The meaning of these coordinates is not explained, we must take this from other books, and the quadratic relation is only given as $(yy)_5 = 1$, which leaves it to the reader to discover what it means. We are not informed either, whether the coordinates are ordinary or general pentaspherical coordinates, and have to discover this later, from the context. On page 2 we read that the different projective orientation processes must be understood in the sense of the author's non-euclidean geometry. This is an essential point, and we must therefore first go to volume 26 of the Tôhoku Mathematical Journal (1926) to find what it means. The same thing happens on page 3, where we are referred to another paper to find the meaning of certain equations expressing a doubly oriented sphere. Such difficulties could easily be avoided if the author, at the beginning, would not presuppose more than an average college knowledge of pentaspherical coordinates, projective and non-euclidean geometry, as, for example, Blaschke, Thomsen, or Fubini-Cech have done in their related expositions. We are sure that Professor Takasu will only do justice to his beautiful investigations if he can agree to such modifications in his presentation.

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Superficie Razionali. By Fabio Conforto. Bologna, Zanichelli, 1939. 16+549 pp.

Although there is an extensive literature on rational surfaces, it is scattered through the periodicals in various languages, and the methods of proof differ widely as the theory gradually develops through more than a century. On the other hand, a knowledge of this field is indispensable to the study of algebraic geometry of more than two dimensions, and to some phases of analysis.

The purpose of the present book is to supply this need of a systematic development of the subject from the present point of view, starting at the beginning and providing all the necessary details of the general theory, but referring to original papers for further