

The transformations of the group G leave the ruled surface S invariant. In fact, their geometric significance is merely to replace the two curves C_y and C_z upon S by two other curves C_η and C_ζ upon S , the point-to-point correspondence being again determined by the generators of S . The transformations of G further involve the most general change of the independent variable. An invariant of system (A) under the transformations of the group G therefore has a significance for the ruled surface S which is independent of the particular curves upon S chosen as fundamental curves, and of the choice of the independent variable. Moreover this significance is of a projective nature, since any projective transformation of the surface S gives rise to the same system of form (A) , and since the most general integrating ruled surface of (A) is a projective transformation of any particular one.

Upon these considerations the lecturer based his theory of ruled surfaces which, together with some known results, contains a great variety of new ones. It is impossible to give an intelligible account of the details of this theory without greatly exceeding the space at our disposal. It is expounded in detail in the lecturer's recent treatise.* This brief abstract will suffice to indicate the character of the subject under investigation and the nature of the methods employed.

ON LOCI THE COORDINATES OF WHOSE POINTS ARE ABELIAN FUNCTIONS OF THREE PARAMETERS.

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A particular case of a surface the homogeneous coordinates of whose points are theta functions of three variables u_1, u_2, u_3 (connected by a relation $\vartheta = 0$) is given by Humbert † and studied in considerable detail by means of this parametric rep-

* E. J. Wilczynski. *Projective differential geometry of curves and ruled surfaces.* Leipzig, B. G. Teubner, 1906.

† "Sur une surface du sixième ordre liée aux fonctions abéliennes de genre trois," *Liouville*, 1896, pp. 263-293.