

principle an integral over a Cartan locus is varied by slipping the locus over the cylinder, points going along trajectories, while in the Hamilton principle the same expression is integrated along an arc of a trajectory and variation takes place by keeping the end points fixed but slipping the intervening path over the surface of a cylinder, points going over arcs of Cartan loci.

Finally, two points may be noted.

(1) From the form of (23) Whittaker's remarks which were cited follow as a corollary.

(2) Since (23) does not reduce to (16) as a special case, there are for the restricted conditions to which the original paper applies two different characterizing Hamilton extremal integrals.

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NOTE ON THE CANONICAL FORM OF THE  
PARAMETRIC EQUATIONS OF A SPACE  
CURVE BELONGING TO A NON-  
SPECIAL LINEAR LINE  
COMPLEX

BY C. R. WYLIE, JR.

In a recent paper,\* the author, by means of a projection from hyper-space, obtained the following equations for a general curve belonging to a linear complex,

$$A: \quad x_1 = -t, \quad x_2 = f - \frac{1}{2}tf', \quad x_3 = -f', \quad x_4 = 1.$$

It is the purpose of this note to call attention to a more symmetric form of these equations.

Let  $x_i = f_i(s)$  be the equation of a general space curve, and  $P_{13} = P_{42}$  be the equation of a general linear complex. If the curve belongs to the complex

$$f_1f_3' - f_3f_1' = f_4f_2' - f_2f_4', \text{ or } \frac{f_1^2(f_1f_3' - f_3f_1')}{f_4^2 \cdot f_1^2} = \frac{(f_4f_2' - f_2f_4')}{f_4^2};$$

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\* C. R. Wylie, Jr., *Space curves belonging to a non-special linear line complex*, American Journal of Mathematics, vol. 57 (1935), pp. 937-942.