tetrahedron outside its edges each in a *Caporali quartic, and contains both the* G_{27} *and the* G_{36}.

$$F_7 = x_1x_2x_3\{a_{14}x_1(x_2^3 - x_3^3) + a_{24}x_2(x_3^3 - x_1^3) + a_{34}x_3(x_1^3 - x_2^3)\}$$
$$+ x_1x_2x_4\{a_{13}x_1(x_2^3 - x_4^3) + a_{23}x_2(x_4^3 - x_1^3) + a_{43}x_4(x_1^3 - x_2^3)\}$$
$$+ x_1x_3x_4\{a_{12}x_1(x_3^3 - x_4^3) + a_{32}x_3(x_4^3 - x_1^3) + a_{42}x_4(x_1^3 - x_3^3)\}$$
$$+ x_2x_3x_4\{a_{21}x_2(x_3^3 - x_4^3) + a_{31}x_3(x_4^3 - x_2^3) + a_{41}x_4(x_2^3 - x_3^3)\} = 0.$$

It has the A_i*'s as triple points and the* $\overline{A_iA_k}$ *as single lines.*

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EINSTEIN SPACES OF CLASS ONE*

BY C. B. ALLENDOERFER

1. *Introduction.* An Einstein space is defined as a Riemann space for which

$$R_{\alpha\beta} = \frac{R}{n} g_{\alpha\beta}. \tag{1}$$

We assume the first fundamental form

$$ds^2 = g_{\alpha\beta}dx^\alpha dx^\beta \tag{2}$$

to be non-singular, but do not restrict ourselves to the positive definite case. An $n+1$ dimensional space is said to be flat when its first fundamental form can be reduced to†

$$ds^2 = \sum_{i=1}^{n+1} c_i(dx^i)^2, \tag{3}$$

where the c_i are definitely plus one or minus one. An n dimensional Riemann space which is not flat is said to be of class one if it can be imbedded in an $n+1$ dimensional flat space. The purpose of this paper is to determine necessary and sufficient conditions that an Einstein space be of class one.

There is no problem when $n=2$, for then every space which

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† Throughout this paper Latin indices will have the range 1 to $n+1$; Greek indices the range 1 to n.