bers $p^{n_1+m}(E_n-M)$ are all finite. Thus we have the following theorem.

THEOREM 5. *Let M be a common boundary of three distinct domains D_k, $(k=1, 2, 3)$, such that D_k is u.l.i-c. for $0\leqq i\leqq n_k$, and $n_1\geqq n_2\geqq n_3$. Then $n_1+n_2\leqq n-3$, and if there exists $m>0$ such that $n_1+m\leqq n-2$ and $n-(n_1+m)-1\leqq n_3$, the Betti numbers $p^{n_1+m}(E_n-B)$ and $p^i(B)$, $(0\leqq i\leqq n_3)$, are all finite.**

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ON THE NORMAL RATIONAL n-IC

BY HELEN SCHLAUCH ADAMS

1. *Notation*. A point α of n-space may be represented by the binary form $(\alpha t)^n=(\alpha_1t_1+\alpha_2t_2)^n$ with non-symbolic coefficients $\alpha_0, \cdots, \alpha_n$. If $(\alpha t)^n$ is a perfect nth power $(t_1t)^n$, α will be the point on C^n of S_n whose parameter is t_1, or briefly the point t_1. Also if $(at)^n$ is a binary form, all points which satisfy the linear apolarity condition $(\alpha a)^n=0$ lie on the $S_{n-1}a$ with coordinates $a_0, \cdots, a_n$. The S_{n-p} $(t_1t)^p(\beta t)^{n-p}$, with parameters $\beta_0, \cdots, \beta_{n-p}$, is the osculating $(n-p)$-space O_{n-p,t_1} to C^n at t_1.† This notat on is helpful in the development of some of the properties of the normal rational n-ic curve. Many of the analogous properties for the case $n=5$ have been found by other methods by A. L. Hjelmann.‡

2. *The Axes of C^n*. An axis of C^n is a line which lies in $(n-1)$ O_{n-1}'s to C^n. The axes of C^n are given by

$$(\alpha t)^n = (t_1t)(t_2t)\cdots(t_{n-1}t)(st),$$

parameters s_0, s_1, the t_i being parameters of points of C^n.

* Thus, although we have no actual example, it is conceivable that there exists, in E_5, a common boundary M of three domains D_k each of which is u.l.i-c. for $i=0, 1$. If so, $p^2(D_k)$ is infinite for $k=1, 2, 3$; and $p^3(E_5-M)$ is finite.

† Grace and Young, *The Algebra of Invariants*, 1903, Chapter 11.

‡ A. L. Hjelmann, *Sur les courbes gauches rationelles du cinquième ordre*, Annales Academiae Scientiarum Fennicae, (A), vol. 3 (1912–13), No. 11.