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## R. Sikorski



Notice that Lemma (i') implies immediately the following COROLLARY I. For arbitrary functions  $f_1, f_2, ..., f_n \in \mathfrak{F}$  there exist a co tinuum  $A_0$  and mappings  $\psi_1, \psi_2, ..., \psi_n$  of  $A_0$  onto I such that

$$f_1\psi_1 = f_2\psi_2 = \dots = f_n\psi_n$$
.

It suffices to put:  $A_0$ =the component of the set A (defined by containing  $p_0$  and  $p_1$ , and

$$\psi_i(x_1, x_2, ..., x_n) = x_i$$
 for  $(x_1, x_2, ..., x_n) \in Z_0$ .

Analogously Theorem III implies the following

COROLLARY II. For arbitrary functions  $f_1, f_2, ..., f_n \in \mathfrak{F}_k$  there extinuum  $A_0 \subset E_{nk}$  and mappings  $\psi_1, \psi_2, ..., \psi_n$  of  $A_0$  onto  $Q_k$  such

- 1)  $S_{k-1} \subset A_0$ ;
- 2)  $\psi_i(x) = x$  for  $x \in S_{k-1}$ , i = 1, 2, ..., n;
- 3)  $S_{k-1}$  is homologous to zero in  $A_0$ ;
- 4)  $f_1\psi_1 = f_2\psi_2 = \dots = f_n\psi_n$ .

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## Addendum to "An extension of Sperner's Lemma, with applications to closed-set coverings and fixed points"

(Fundamenta Mathematicae 40 (1953), p. 3-12)

b)

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In Theorem 2, Theorem 3, and Corollary 3, it is sufficient to assume merely that  $m \neq 2$ , for then, in the proof of Theorem 2, the asserted properties of the numbers  $a_h^D$  imply that, in the natural orientation of the m-plex,  $S_2, S_3, \ldots, S_m$  all become  $\pi$ -simplexes, so that  $\pi \neq \nu + 1$ , and hence Theorem 1 applies. (Corollary 3 is true, of course, for every m, as is easily seen, for m > 1, by making use of the fact that the m-plex is connected but its frontier is not.)