

Toposym 1

Kazimierz Kuratowski

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THE SPACE OF MAPPINGS INTO THE SPHERE AND ITS TOPOLOGICAL APPLICATIONS

K. KURATOWSKI

Warszawa

Given an arbitrary subset X of the sphere S_n , the space of mappings $f : X \rightarrow P_n = E^n - (0)$ is considered. The set of all components of this space is a topological group relatively to the cohomotopical multiplication. Denote this group by $\mathfrak{C}(P_n^X)$.

Put $Y = S_n - X$ and consider the topological group $\mathfrak{N}(Y)$ of all integer-valued measures defined on closed-open subsets of Y (i. e. of countably additive functions $\mu(Z)$ such that $\mu(Y) = 0 = \mu(\emptyset)$).

Duality theorems between the groups $\mathfrak{C}(P_n^X)$ and $\mathfrak{N}(Y)$ are established.

For a detailed exposition, see the new edition (1961) of the author's monograph *Topologie II (Appendix)*.