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Separation of $(n+1)$*-families of sets in general position in* $\mathbf{R}^n$

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Abstract: In this paper the main result in [1], concerning $(n+1)$-families of sets in general position in $\mathbf{R}^n$, is generalized. Finally we prove the following theorem: If $\{A_1, A_2, ..., A_{n+1}\}$ is a family of compact convexly connected sets in general position in $\mathbf{R}^n$, then for each proper subset I of $\{1, 2, ..., n+1\}$ the set of hyperplanes separating $\cup\{A_i : i \in I\}$ and $\cup\{A_j : j \in \overline{I}\}$ is homeomorphic to S_n^+.

Keywords: family of sets in general position, convexly connected sets, Fan-Glicksberg-Kakutani fixed point theorem
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