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Krein-Milman theorem

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Theorem. Let X be a locally convex topological vector space, and let $K \subset X$ be a compact http://planetmath.org/ConvexSetconvex subset. Then K is the closed convex hull of its extreme points.

The closed convex hull above is defined as the intersection of all closed convex subsets of X that contain K. This turns out to be the same as the closure of the convex hull in a topological vector space.

References

[1] H. L. Royden. . Prentice-Hall, Englewood Cliffs, New Jersey, 1988