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Abstracts of Short Communications and Posters

Section:

8. Analysis

1991 MS Classification: 52A: 20
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Closedness of convex hull and its applications
The following question is motivated by the problem of spannability of functions: when is the convex hull of an unbounded (closed) set closed? We provide necessary and sufficient conditions for the closedness of the convex hull. Then we apply these results to the problem of spannability of functions which plays an important role in mathematical economics and variational calculus. Resulting characterizations of spannability of functions imply previously known sufficient conditions of spannability.
References: F. Hüsseinov, Characterization of spannability of functions, *J. Math. Econ.* **28** (1997), 29-40.
L. S. Shapley and M. Shubik. Quasi-cores in a monetary economy with nonconvex preferences, *Econometrica,* **34** (1966), 805-827.