## 134. Zvi Artstein and Vladimir Kadets, **B-Convexity, Convexification of Minkowski** averages in Banach Space, and SLLN for Random Sets. J. Convex Analysis, to appear.

**Abstract.** For an infinite-dimensional Banach space X, we demonstrate the equivalence of the following two properties. One, the space is B-convex, that is, it possesses a non-trivial type. Two, X possesses the convexification property, that is, the Hausdorff distance between the Minkowski average of k subsets of the unit ball, and the convex hull of the average, converges to 0 as k tends to infinity. A rate for the convergence is provided. The result is used to establish a general Strong Law of Large Numbers for random bounded subsets of the Banach space. Keywords: Banach space, Minkowski averages, convexification, random

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