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P. N. Dowling, C. J. Lennard and B. Turett* (turett@oakland.edu), Department of Mathematics and Statistics, Oakland University, Rochester, MI 48309-4485. An application of vector measures in fixed point theory.

In 1981, D. Alspach gave the first example of a weakly compact, convex subset of a Banach space that fails the fixed point property for nonexpansive mappings. In this talk, we use Liapounoff's convexity theorem and a variation of Alspach's example is to construct new weakly compact, convex subsets of $L^1[0, 1]$ that fail to have the fixed point property for nonexpansive mappings. (Received January 11, 2007)