1054-60-262 **Mark Burgin**, Department of Mathematics, University of California, Los Angeles, Los Angeles, CA , and **Alan Krinik*** (`ackrinik@csupomona.edu`), Department of Mathematics and Statistics, California St. Polytechnic University, Pomona, Pomona, CA 91768.

Hyperprobabilities. Preliminary report.

The extension of the real number line to hypernumbers has consequences for stochastic analysis. In particular, hyperprobabilities may be defined as equivalence classes of sequences having terms from the interval [0,1]. These sequences do not need to converge and thus extend the definition of the probability of an event to the hyperprobability of an event. Recasting many fundamental operations of probability theory in terms of hyperprobabilites leads to some interesting examples and applications. (Received September 15, 2009)