**Vladimir G. Pestov**
*On a result of K. P. Hart about non-existence of measurable solutions to the discrete expectation maximization problem*

**Abstract:** It was shown that there is a statistical learning problem – a version of the expectation maximization (EMX) problem – whose consistency in a domain of cardinality continuum under the family of purely atomic probability measures and with finite hypotheses is equivalent to a version of the continuum hypothesis, and thus independent of ZFC. K. P. Hart had subsequently proved that no solution to the EMX problem can be Borel measurable with regard to an uncountable standard Borel structure on $X$, and so the independence result could just be an artefact of a model allowing non-measurable learning rules. In this note we reinforce the point somewhat by observing that such a solution cannot even be Lebesgue measurable.

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