

1147-03-674

**Laurent Bienvenu\*** (`laurent.bienvenu@computability.fr`), LaBRI, 351 Cours de la Libération, 33405 Talence, France, and **Santiago Figueira**, **Benoit Monin** and **Alexander Shen**. *Algorithmic identification of probabilities is hard.*

Suppose that we are given an infinite binary sequence which is random for a Bernoulli measure of parameter  $p$ . By the law of large numbers, the frequency of zeros in the sequence tends to  $p$ , and thus we can get better and better approximations of  $p$  as we read the sequence. We study in this paper a similar question, but from the viewpoint of inductive inference. We suppose now that  $p$  is a computable real, but one asks for more: as we are reading more and more bits of our random sequence, we have to eventually guess the exact parameter  $p$  (in the form of a Turing code). Can one do such a thing uniformly on all sequences that are random for computable Bernoulli measures, or even on a ‘large enough’ fraction of them? We give a very general negative answer to this question, though we show that some positive result can be obtained for weaker requirements. (Received January 28, 2019)