Alexander Berenstein*, Universidad de los Andes, Cra 1 nro 18 A- 10., Bogota, Colombia, and Itaï Ben Yaacov and Ward Henson. Model theory of probability spaces.

In this talk we will discuss how to study the measure algebra of a probability space from the point of view of continuous model theory. This theory turns out to be very well behaved, it is ω -stable and separably categorical. Conditional distributions arise naturally from the model theoretic perspective as canonical bases. We will study conditional distributions and show that for these objects the logic topology agrees with weak convergence. Finally we will show how to interpret and prove model theoretically some results of Berkes and Rosenthal dealing with sequences of random variables. (Received September 13, 2013)