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**Rehana Patel\*** ([rehana.patel@olin.edu](mailto:rehana.patel@olin.edu)), Franklin W. Olin College of Engineering, Olin Way, Needham, MA 02492. *Ergodic invariant measures as probabilistic structures.*

Probabilistic constructions are ubiquitous throughout mathematics. How might one formulate a model-theoretic notion of ‘probabilistic structure’? One natural formulation is provided by the ergodic  $S_\infty$ -invariant probability measures on the space of countable structures (with fixed underlying set) in a given countable language; to each such measure is associated a complete and consistent infinitary theory. In this talk I will describe a program, initiated by Nate Ackerman, Cameron Freer and myself, that aims to develop a model theory for such probabilistic structures, and discuss some recent results. (Received September 16, 2014)