



**Speaker:** Eric Astor  
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Tuesday, November 11, 2014  
2:00 PM  
125 Hayes-Healy Hall

**Title:** Intrinsic Density and Effective Negligibility

**Abstract:**

Seeking a useful notion of negligible subsets of the natural numbers, we investigate a computably-invariant restriction of asymptotic density. This turns out to be a natural pseudo-measure, and along with it, we find first a new immunity property (having nothing to do with the usual hyperimmunity variants), and then a new kind of stochasticity. The connection between stochasticity and immunity reminds us of a neglected philosophical feature of immunity... and then we make that philosophy rigorous, pinning down exactly how hard it is to make an effectively-negligible set. Finally, combining these ideas with Jockusch and Schupp's coarse and generic-case computabilities, some notions of "almost-everywhere computability" emerge with a new respect for 1-reductions and the halting problem.