



**Speaker:** Mike Haskel  
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Tuesday, September 16, 2014  
11:00 AM  
125 Hayes-Healy Hall

**Title:** Non-Smooth Behavior of Lascar Strong Types

**Abstract:**

In model theory, the type of a point is the set of formulas that describe it. One useful aspect of types is that they partition the universe into equivalence classes, and that there is a bound on the number of equivalence classes (based on the size of the language); that is, there is a point past which you cannot see more equivalence classes by finding a larger model. Other than types, there are finer ways to achieve this; we call the resulting equivalence relations strong types. This talk discusses the finest possible such, the Lascar strong type, and demonstrates that it is either trivial with respect to Kim-Pillay strong types (which are better understood) or is non-smooth in the sense of descriptive set theory. This result is due to a 2013 paper by Itay Kaplan, Benjamin Miller, and Pierre Simon.