Mathematics Department Colloquium

Organizer: Maciej Zworski

Thursdays, 4:10–5:00pm, 60 Evans

April 6 **Hugh Woodin**, UC Berkeley

The transfinite universe

Many of the fundamental questions of Set Theory, such as the Continuum Hypothesis, cannot be solved on the basis of the axioms, ZFC. Further the realm of sets is at best completely hidden from us, there are no computer experiments (so far) which can help guide our intuitions and no probes we can launch to search for answers.

Perhaps this is simply because there is no realm of sets and the subject is nothing more than a reflection of the mathematician.

I shall survey some recent developments which collectively suggest there is a conception of the realm of sets which is as unambiguous as our conception of the integers, given by one additional axiom which settles all known questions about sets modulo infinity axioms.