The Oliver Club

www.math.cornell.edu/~oliver/

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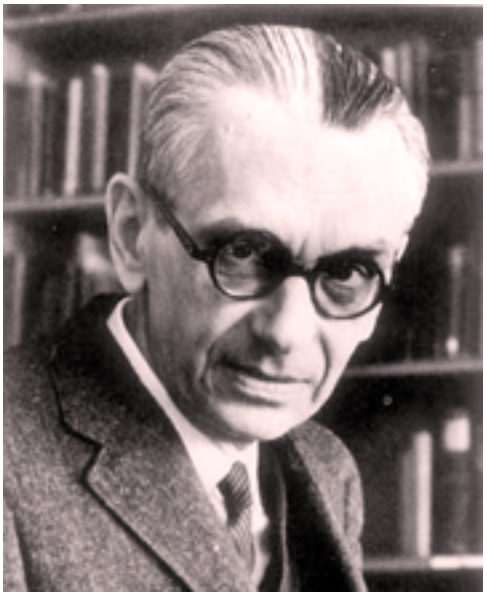
Some Reflections on the Continuum Hypothesis



The Continuum Problem asks whether there is a set of reals whose cardinality is strictly between the cardinality of the integers and the cardinality of the reals. This was the first problem on Hilbert's famous list, and it turned out to be undecidable by the usual axiom systems for Set Theory. The results of Gödel and Cohen tell us that the axioms give very little information about the relative size of the set of integers and the set of reals. Gödel's conjecture that strong axioms of infinity will settle the problem turned out to be false. Is this the end of the story?

In this talk we shall survey some current approaches of trying to give a meaningful answer to the problem, in spite of its independence. Two directions of research we shall concentrate on will be forcing axioms and the theory of universally Baire sets of reals.

Thursday, April 22, 2010
at 4:25 PM in 406 Malott Hall

Refreshments will be served at 3:55 PM in the Mathematics Department lounge (532 Malott Hall).