Objectivity over Objects

Kai Hauser

Kurt Gödel's viewpoint in the philosophy of mathematics is usually characterized as a radical platonism whose underlying epistemology rests on mathematical intuition as a form of perception of abstract objects. However, in some places Gödel suggests a modified realism that can be described in terms of a primacy of objectivity over objects. In my talk I will sketch an account of the methodology of contemporary set theory (mainly in the context of the ongoing search for new axioms) based on an extrapolation of this idea.

The essence of objectivity is to view from the outset mathematical propositions as determinately true or false and to seek rational and reliable methods to *evidence* their truth or falsehood. Causal interaction with abstract objects is not a part of this analysis, and this avoids the notorious difficulties plaguing naive realism. I will give a few examples to illustrate how one arrives at an adequate description of the process of theory formation in contemporary set theory, and (time permitting) discuss the reliability of the truth criteria used therein.

Address: Technische Universtät, Fachbreich 3, Sekr. MA 8-1, 10623 Berlin
E-mail: `hauser@mathematik.hu-berlin.de`