Young Women in Topology Meeting 2013 University of Bonn, June 7-9, 2013

Talk 6: Paige North, Cambridge UK

A framework for constructive homotopy theory

Homotopy type theory is a new program in mathematics that seeks to understand the connection between homotopy theory, an integral part of algebraic topology, and intensional type theory. Classically, the word 'homotopy' refers to a path from one point to another in a topological space, and the word 'intensional' marks the importance of the notion of proof from one proposition to another. I will explain the realization in homotopy type theory of the analogy between these two notions and the implications for homotopy theory.